



December 23, 2022

Mr. Mark Gorog, P.E. PA Department of Environmental Protection Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745

Dear Mark:

Subject: Reasonably Available Control Technology Notification (RACT III) ATI Flat Rolled Products Holdings, LLC – Vandergrift Facility

In accordance with proposed Air Quality Regulations of the Pennsylvania Department of Environmental Protection (PADEP), major sources of Volatile Organic Compounds (VOC) and/or Oxides of Nitrogen (NO_x) are required to submit a RACT notification and/or proposal identifying how our facility will comply with RACT III requirements. Accordingly, enclosed is the RACT notification and proposal for ATI Flat Rolled Products Holdings, LLC which identifies presumptive RACT requirements, methods of demonstrating compliance, and case-by-case analyses for the emission units located at our Vandergrift, PA Facility.

If you have any questions, please do not hesitate to telephone me at (724) 226-5947.

Very Truly Yours,

Deborah, L. Calderazzo Director, EHS

Attachments

ATTACHMENT 1

PRESUMPTIVE RACT,

RACT EXEMPT UNITS,

and

CASE-BY-CASE RACT ANALYSIS

ATTACHMENT 1

PRESUMPTIVE RACT

The Vandergrift Facility of ATI is a major source of NO_x and is not a major source of VOC.

The following units are natural gas-fired boilers or natural gas-fired combustion sources with a rated heat input capacity <20 MMBtu/hr, emergency standby engines operating less than 500 hours per year, and/or sources with NOx potential to emit <5 tons per year. These units will comply with the Presumptive RACT requirement pursuant to §129.112(c); operate in accordance with manufacturer's specifications and good operating practices. Please note that the requirement to operate in accordance with manufacturer's specifications and good operating practices is an existing Title V/RACT and/or Plan Approval Permit requirement for these sources.

Source ID	Description	Rated Capacity
116	Misc Space Heaters <20 MMBTU/hr e	
033	Boiler No. 3	7 MMBtu/hr
121F	No. 91 A&P - Kolene Heater 8 MMBtu/hr	
123B	BA Furnace (startup CY2023)	17.7 MMBtu/hr
124	Hood Anneal Furnace (startup CY2023)	3.6 MMBtu/hr

ATTACHMENT 1 - CONTINUED

PRESUMPTIVE RACT

The following units are natural gas-fired combustion units with rated heat input capacities equal to or greater than 20 MMBtu/hr each and less than 50 MMBtu/hr. These units will comply with the Presumptive RACT requirement pursuant to §129.112(b); biennial combustion tune-up. Please note that <u>annual</u> RACT tune-ups and inspections are existing Title V/RACT Permit requirements for these sources.

Source ID	Description	Rated Capacity
031	No. 1 Boiler	26.1 MMBTU/hr
032	No. 2 Boiler	26.1 MMBTU/hr

ATTACHMENT 1 - CONTINUED

ALTERNATIVE RACT PROPOSAL

A case-by-case RACT Analysis is attached for the following emission units in accordance with §129.114. Please note that a RACT II case-by-case analysis was performed on No. 90 A&P Annealing Furnace, No. 90 A&P HNO₃/HF Pickling, and No. 91 A&P HNO₃/HF Pickling and approved by PA DEP. The No. 91 A&P Annealing Furnace case-by-case analysis is based on the same technologies and rational as No. 90 A&P Annealing Furnace, and No. 91 A&P HNO₃/HF Pickling case-by-case analysis is based on the same technologies and rational as No. 90 A&P Annealing Furnace, and No. 91 A&P HNO₃/HF Pickling case-by-case analysis is based on the same technologies and rational as No. 90 A&P HNO₃/HF Pickling. In addition, the RACT II case-by-case analysis results were incorporated into the Title V Permit. The RBLC was searched and new technologies were not identified. In addition, the No. 90 A&P Annealing Furnace and the No. 91 A&P Annealing Furnace undergo RACT combustion tune-ups/inspections annually (existing Title V requirements) and NOx is tested annually using a portable analyzer.

Source ID	Description	Rated Capacity
120A	No. 90 A&P - Annealing Furnace	50.5 MMBTU/hr
121B	No. 91 A&P - Annealing Furnace	42 MMBTU/hr
120D	No. 90 A&P - HNO ₃ /HF Pickling	40 tons/hr
121E	No. 91 A&P - HNO ₃ /HF Pickling	35 tons/hr

ATTACHMENT 1 - CONTINUED

RACT EXEMP	RACT EXEMPT per § 129.111(c) - PTE NOx < 1 TPY Rated	
120E	No. 90 A&P - Strip Dryer	1.3 MMBTU/hr
121A	No. 91 A&P - Strip Dryer No. 1	1.3 MMBTU/hr
IZIA	No. 91 A&P - Strip Dryer No. 2	1.3 MMBTU/hr
118	Emergency Generator (startup CY2023)	410 KW

ATI FLAT ROLLED PRODUCTS HOLDINGS, LLC

VANDERGRIFT FACILITY – RACT PROPOSAL

December 2022

1. GENERAL

In accordance with proposed Air Quality Regulations of the Pennsylvania Department of Environmental Protection (PADEP), major sources of Volatile Organic Compounds (VOC) and/or Oxides of Nitrogen (NO_x) are required to submit a Proposal to achieve Reasonably Available Control Technology (RACT) on specified sources of VOC and/or NO_x. Proposed regulations in 25 PA Code §129.114 and §129.115 require that a RACT Proposal and/or notification be submitted for certain sources by December 31, 2022.

At the Vandergrift Facility of ATI Flat Rolled Products Holdings, LLC (ATI), four (4) sources of NO_x were evaluated for top-down analysis in this RACT Proposal:

- No. 90 Anneal and Pickling (A&P) Line Annealing Furnace
- No. 91 Anneal and Pickling (A&P) Line Annealing Furnace
- No. 90 A&P Line Mixed Acid Pickling
- No. 91 A&P Line Mixed Acid Pickling.

Applicable control technologies were identified, technically infeasible options were eliminated, remaining technologies were ranked by control effectiveness, and the total and incremental cost effectiveness for each remaining control option was determined. Note that No. 90 A&P Line and No. 91 A&P Line are already regulated under our existing Title V Operating Permit and RACT regulations.

Based on the results of the top-down analyses, it was concluded that No. 90 A&P Line Annealing Furnace, No. 91 A&P Line Annealing Furnace, No. 90 A&P Line Mixed Acid Pickling, and No. 91 A&P Line Mixed Acid Pickling processes satisfy RACT requirements under present operating conditions.

2. FACILITY DESCRIPTION

The Vandergrift Facility of ATI is a specialty materials finishing facility. The principal products produced at Vandergrift are finished specialty strip. In general, finishing operations include annealing, pickling and cold rolling. Annealing is the process of altering the properties of the product by subjecting it to controlled thermal cycles with moderate peak temperatures. Annealing relieves thermal and mechanical stresses induced by the rolling operations and softens the product to improve its formability. Mixed Acid Pickling is a cleaning process for specialty products; mixed acid (nitric and hydrofluoric acids) dissolve and chemically remove oxidized metal and other materials from the product.

3. EMISSIONS INFORMATION

Nos. 90 and 91 Anneal and Pickle (A&P) Lines are included in Title V Permit 65-00137. NO_x potential emissions are based on the permitted NO_x emission rates.

Source ID	Description	Emission Rate (lb/hr)	Potential to Emit (TPY)
120A	No. 90 A&P Line Anneal Furnace	5.94 lb/hr	26 tons/year
121B	No. 91 A&P Line Anneal Furnace	6.0 lb/hr	24.9 tons/year
120D	No. 90 A&P Line HNO ₃ /HF Pickling	23.5 lb/hr	103 tons/year
121E	No. 91 A&P Line HNO ₃ /HF Pickling	19.7 lb/hr	57.4 tons/year

TABLE 1 - NO_x POTENTIAL TO EMIT

4. TECHNICAL AND ECONOMIC ANALYSES OF NO_x CONTROL OPTIONS

The principal methodology employed for case-by-case analysis is patterned after the "Guidance Document on Reasonably Available Control Technology for Sources of NO_x Emissions." There are two (2) major phases of analyses incorporated into the top-down review of control options.

First is a review of available control options to determine their feasibility for application to specific individual sources and the associated control effectiveness. Among the factors taken into consideration in determining technological feasibility are temperature requirements/limitations, potential for fouling, installation space limitations and creation of additional environmental liabilities such as secondary pollutants or new wastestreams.

Only the control options that were judged to be technologically feasible were analyzed for economic feasibility. This was the second major phase of the top-down approach. The principal activities during this phase were estimating the capital and operating costs for incorporating each control option into each applicable source. Cost information was obtained from the technology references and budgetary vendor quotations were obtained for selected items of control equipment and detailed construction estimates were prepared.

Calculations of annualized total costs for control options were developed in accordance with the PADEP Guidelines and the cost control manual of EPA's OAQPS. By dividing the annualized total costs by the estimated annual reduction in NO_x, the "total cost effectiveness" of each option was computed. Incremental cost effectiveness ratios were calculated and reported.

The calculated total cost effectiveness was compared with the regulatory cost effectiveness threshold to determine the economic feasibility of each option. For NO_x, in accordance with the PA DEP proposed regulation in \$129.114, the regulatory threshold is \$7,500/ton. If the calculated cost effectiveness exceeded this threshold value, the control option was determined to be economically infeasible, therefore, beyond RACT. The economic comparison of costs versus the threshold proceeded from the top-listed control option to lower listed options. The top-down process was continued until a control option was evaluated as both technologically feasible and cost effective, or until no options were found to be feasible and cost effective.

Description of Available NOx Control Technologies

Technologies for controlling NO_x emissions from various steel making processes can be divided into three basic categories: 1) combustion modifications; 2) post-combustion or post-process modifications; and 3) post-process controls.

- 1) Combustion Modifications:
 - Low excess air (LEA) operation
 - Low-NO_x burners (LNB)
 - Low-NO_x burners plus flue gas recirculation (FGR)
- 2) Post-Combustion or Post-Process Modifications:
 - Selective catalytic reduction (SCR)
 - Selective non-catalytic reduction (SNCR)
- 3) Post-Process Controls:
 - Hydrogen-peroxide Injection
 - Absorption with chemical reaction
 - Absorption

Combustion Modifications

Low Excess Air (LEA) Operation

LEA operation inhibits NO_x formation by reducing excess air levels. Since NO_x formation at furnace conditions is strongly influenced by oxygen availability, reducing the local flame concentration of oxygen reduces NO_x formation. LEA typically provides relatively low NO_x reductions and is relatively easy to implement. It can be implemented alone but is almost always included when other combustion modifications are implemented. Some important factors which can affect application of LEA to a given combustion process include the condition and age of existing burners and control systems and variability of load swings.

From an economic standpoint, it is desirable to maintain minimum excess air since providing excessive amounts of air increases the heat losses in the flue gases, thereby increasing fuel consumption. In general, ATI furnace atmospheres must be controlled to promote the required scale formation based on the product type being processed. Therefore, LEA operation is not a feasible NOx control option.

Low-NO_x Burners (LNB)

LNBs control NO_x formation by carrying out combustion in stages and either the air or the fuel can be added in stages. Compared to standard burners, the combustion process is prolonged. The flame has a chance to radiate heat (and thereby cool) before combustion is complete, which reduces NO_x formation. The most commonly applied type of LNB is a staged air design with low turbulence, less-than-stoichiometric combustion in the primary zone. One or more zones of additional air introduction with the burner provide air staging within the flame envelope and complete combustion. The end result is generally an increase in flame length over that produced by a standard burner, so applicability is limited to furnaces with adequate dimensions. Staged air burners can be fitted with FGR connections or designed so furnace gases are induced into the flame.

In contrast, a staged fuel LNB applies all the air in the initial mixing zone with only part of the fuel, so that the initial flame is relatively cool and NO_x formation is limited. After some heat has been absorbed by the furnace, the remaining fuel is added through high velocity nozzles positioned around the perimeter of the burner. This promotes rapid mixing and entrains furnace gases into the flame, which provides the benefits of FGR. Staged fuel burners generally have a more compact flame than staged air types. One possible drawback is that in contrast to staged air burners, staged fuel burners are only applicable to installations using gaseous fuel because of the need for high pressure second stage fuel injection.

LNBs provide moderate NO_x reductions. A negative side effect of low NO_x burner combustion may be an increase in CO emissions due to low excess air levels, cooler flames and relatively lower turbulence.

Flue Gas Recirculation (FGR)

FGR decreases the peak flame temperature by increasing the inert gaseous components in the flame (i.e., by "diluting" the heat released from combustion) and reduces the oxygen availability in the flame both of which reduce thermal NO_x formation. However, the reduction in flame temperature is dependent on the temperature of the recycled flue gas; this reduces the effectiveness of this control method as the flue gas temperature increases. It is implemented only as part of a LNB retrofit (since burners must be designed for FGR) and provides relatively small additional NO_x reductions.

Post-Combustion or Post-Process NO_x Reduction Technologies

Selective catalytic reduction (SCR) and Selective non-catalytic reduction (SNCR)

Post-combustion or post-process NO_x reduction technologies involve injecting a chemical reagent into the flue gas stream to reduce the NO_x that has already been formed. This contrasts with combustion techniques that are focused on controlling the initial formation of NO_x. The chemical reaction between the reagent and NO_x selectively reduces NO_x to molecular oxygen and nitrogen.

The reduction reaction can take place in the presence of a metal oxide or ceramic composite catalyst that promotes this reaction and is termed Selective Catalytic Reduction (SCR). SCR provides a relatively high potential for NO_x destruction (up to 90% NO_x removal). An aqueous ammonia solution or anhydrous ammonia is used as the reducing agent and is injected into the gas stream upstream of the catalyst grid, usually with compressed air as a carrier gas to assist in mixing and penetration. Major hardware components of the system include the catalyst grid, ammonia storage, flow control and metering station, and controls.

The optimal temperature range for the reduction reaction is 500 to $800^{\circ}F$ - temperatures below this range do not provide enough energy to promote the reaction and lead to unreacted ammonia (or "slip") in the gas stream. If the flue gas exceeds the upper temperature limit, the chemical reactions can produce additional NO_x and excessive temperatures can destroy the catalyst. Other major issues of concern when considering SCR are the particulate concentration of the gas stream (particulate can foul the catalyst) and the additional pressure drop imposed by the catalyst bed (which requires additional fan capacity).

When a catalyst is not used, the process is termed Selective Non-Catalytic Reduction (SNCR). SNCR is accomplished in a combustion gas temperature range of 1,600 to 2,100 °F. Temperatures above and below this range cause the same effects as with SCR - ammonia slip at low temperatures and NO_x formation at high temperature. NO_x removal efficiency is typically lower, and either ammonia or urea (or a urea-based formulation) is used as the reagent.

The technical feasibility of SNCR depends on the availability of access to a zone that has a temperature within the previously stated working range over all normal operating conditions. Suitable retention time at the optimal temperature range is also necessary to allow the reducing reactions to take place. SNCR is infeasible for application at a specialty steel pickling operation and ATI's annealing furnaces due to the temperature requirements necessary for SNCR. At the Vandergrift facility, the exhaust temperatures of the pickling operations are typically 100 to 150 °F; the exhaust temperature of the annealing furnaces are typically 800 to 900 °F. Also, according to USEPA's Air Pollution Control Technology Fact Sheet (EPA-452/F-03-031), SNCR is typically applied to industrial processes with uncontrolled NOx loading of 200 to 400 ppm. ATI's annealing furnace NOx loading is typically 30 to 50 ppm, which is well below the threshold for SNCR application. Finally, based on a review of the RBLC, no instances of an SNCR being installed on a specialty steel pickling process or annealing furnace were identified.

Hydrogen Peroxide Injection

Hydrogen peroxide injection is a means of reducing NO_x emissions from a mixed acid (nitric/hydrofluoric) solution. During the pickling process, the nitric acid is converted to nitrous acid that is insoluble in the mixed acid solution and decomposes into mixed NO_x that escapes to the atmosphere. Injecting hydrogen peroxide into the acid bath oxidizes the dissolved NO_x back to nitric acid before it escapes out of the solution. The rate of peroxide injection is controlled by the oxidation-reduction potential of the acid bath. Although the operating cost is high due to hydrogen peroxide consumption, the process would affect NO_x reduction in deep-bath pickling.

Absorption with Chemical Reaction

Absorption with chemical reaction is a NO_x reduction technique potentially applicable to the pickling line. It is a multi-stage, wet chemical mass transfer reduction process, designed to reduce NO_2 to molecular nitrogen and water. The reduction process is carried out in a packed column which is fed from a recirculation tank having chemical concentrations held to specific levels based on pH and reduction potential requirements.

5. RESULTS OF TOP-DOWN ANALYSES

The results of the top-down analysis for NO_x control alternatives reveal that no control option would be cost effect relative to the \$7,500/ton cost effectiveness threshold.

6. RACT DETERMINATIONS

As a result of the case-by-case analyses, existing equipment configurations, operating practices and control systems at the Vandergrift facility meet the requirements of RACT. Although technologically feasible control enhancements were identified during top-down

analyses of the sources, none of the control options could be installed and operated for less than \$7,500 per ton NO_x reduced, the PADEP threshold for cost effectiveness.

ATI is not proposing to add any specific new control equipment to demonstrate RACT. Consequently, there is no need to submit Plan Approval Applications with this RACT Proposal; nor is it necessary to submit a RACT Implementation Plan.

APPENDIX 1

TOP DOWN ANALYSIS AND CONSTRUCTION COST ESTIMATES FOR CONTROL OPTIONS

ATI FLAT ROLLED PRODUCTS HOLDINGS - VANDERGRIFT FACILITY

RACT TOP-DOWN ANALYSIS

Source 120A - NO. 90 A&P Line Annealing Furnace (50.5 MMBtu/hr)

NOx RACT PROPOSAL

CONTROL OPTIONS:				
Control Technology	Typical Control Effectiveness	Technical Feasibility		
SCR + LNB	95 - 97%	Yes (1)		
SCR	50 - 95%	Yes		
SNCR	30 - 50%	No (2)		
LNB + FGR	30 - 60%	Yes		
LNB	20 - 50%	Yes (3)		

Notes:

LNB portion currently installed and operating.
 See RACT Proposal for technical basis for infeasibility.
 Currently installed and operating.

		CON		ON COSTS:			
Control Technology	Estimated Control % from Additional Technology	Controlled Emissions (tons/yr)	Emission Reduction (tons/yr)	Total Annualized Costs (\$/yr)	Total Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)	Potential for Adverse or Additional Environmental Impacts
BASELINE CONDITION: LNB (90 Line Annealing Furnace baseline emission rate for NOx = 26 TPY. This is existing Title V limit, which is based on LNB control technology.)	currently installed	26	-	-	-	-	
Additional control technology #1: LNB + SCR	80%	5	21	\$2,272,869	\$109,273	\$238,680	
Additional control technology #2: LNB + FGR	50%	13	13	\$411,165	\$31,628	\$31,628	

SOURCE 120A - No. 90 A&P Line Annealing Furnace

CONTROL OPTION -SELECTIVE CATALYTIC REDUCTION (SCR)

CAPITAL COST ES	IIMATE [*]	ANNUALIZE	ED COST ESTIMATE	
Cost Item	\$	Cost Item	Cost Factor	\$
DIRECT COSTS:		DIRECT OPERATING COSTS:		
Purchase Equipment Costs:		Operating Labor	0.5 hr/turn	\$49,930
	50 00 054 044	Supervision	15% of labor	\$7,489
Control Equipment	EC \$2,251,014			
loods & Ductwork	\$320,408	Operating Materials *	-	\$356,877
Piping	\$165,025	(ammonia water)		
Electrical	\$75,281	Maintenance Labor	0.5 hr/turn	\$49,930
nstrumentation & Controls	\$98,273	Materials	100% of labor	\$49,930
oundations	\$13,350			
Steelwork	\$38,938	Utilities - Natural Gas	\$6.69/mcf	\$0
ite Preparation	\$9,271	(assumes auxiliary burner not re	equired for Anneal Furna	ce)
Buildings/Demo.	included above	Waste Disposal	-	\$0
/aterial Markup (10%)	\$29,786			
abor Markup (20%)	\$134,234	Wastewater Treatment	-	\$0
Equipment Markup (5%)	\$100,127			
Sales Tax (7%)	\$161,027	Total Direct Operating Costs (DOC	() =	\$514,156
Freight (FOB Jobsite)	\$92,017		/	<i>Q</i> U U U U U U U U U U
otal Purchased Equip. Cost (PEC)	\$3,488,752	INDIRECT OPERATING COSTS:		
nstallation:		Overhead	60% of DOC	\$308,493
		Property Tax	1% of TCC	\$71,528
Engr & Const. Management	\$418,651	Insurance	1% of TCC	\$71,528
Const. Mobilization	\$122,107	Administration	2 % of TCC	\$143,055
Contractor Fees	\$279,100	Capital Recovery	0.16275	\$1,164,11
Startup Testing	\$34,889			
Performance Testing	\$55,626			
Contingencies	\$348,874	TOTAL ANNUALIZED COST =		\$2,272,86
otal Installation Cost	\$1,259,248			
		Notes:		
otal Direct Costs (DC) =	\$4,748,000			
		Maximum no. of turns/yr =	1095	
		Operating labor cost (\$/hr) =	91.20	
		Maintenance labor cost (\$/hr) =	91.20	
C \$ based on 2015 actual installation.		Due to the corrosive nature of spec	ialty steel annealing and	acid pickling
OC 1/2015 is escalated to 8/2022 using Ch	emical Engineering Equipment Indices.	at ATI, capital recovery assumes 1		
Jan-15	694.8			
Aug-22	1046.7			
EC Escalation Factor =	1.51			

TOTAL CAPITAL COST (TCC) =

\$7,152,751

* NOTES:
1) Total Direct Cost (DC) from 2015 actual SCR installation (Midland, PA).
2) Operating Materials Cost based on 2018 cost/usage info at existing installation with EC Escalation Factor to 8/2022, and ratioed to applicable source's production tons.

SOURCE 120A - No. 90 A&P Line Annealing Furnace

CONTROL OPTION - LOW NOX BURNERS + FLUE GAS RECIRCULATION

20		0 1 202 0,101
CAPITAL COST	ESTIMATE	
Cost Item		\$
DIRECT COSTS:		
Purchase Equipment Costs:		
Control Equipment	EC	\$96,400
loods & Ductwork		\$131,200
bing		\$47,500
ectrical		\$15,400
strumentation & Controls		\$14,500
undations		\$2,500
eelwork te Preparation		\$5,400 \$1,600
ildings		\$1,600 \$0
terial Markup (10%)		\$7,143
bor Markup (20%)		\$34,935
uipment Markup (5%)		\$3,420
ales Tax (6%)		\$9,788
eight (FOB Jobsite)		\$5,593
tal Purchased Equip. Cost (PEC)		\$375,378
stallation:		
gr & Const. Management		\$45,045
nst. Mobilization		\$13,138
tractor Fees		\$30,030
rtup Testing		\$3,754
formance Testing		\$15,000
tingencies		\$37,538
al Installation Cost		\$144,505
al Direct Costs (DC) =		\$519,884
C (1/96 \$) is escalated to 6/16 \$ using C C (6/16 \$) is escalated to 8/22 \$ using C		
Jan-96	426.4	
Jan-96 Jun-16	426.4 645.3	
Aug-22	1046.7	
C C		
EC Escalation Factor =	1.51	
EC Escalation Factor (8/22) =	1.62	

TOTAL CAPITAL	COST (TCC) =
---------------	--------------

\$786,775

Cost Item	Cost Factor	\$
DIRECT OPERATING COSTS:		
Operating Labor Supervision	0.5 hr/turn 15% of labor	\$49,930 \$7,489
Operating Materials	-	\$0
Maintenance Labor Materials	0.5 hr/turn 100% of labor	\$49,930 \$49,930
Utilities - Natural Gas	\$6.69/mcf	\$0
Waste Disposal	-	\$0
Wastewater Treatment	-	\$0
Total Direct Operating Costs (DOC) =		\$157,279
INDIRECT OPERATING COSTS:		
Overhead Property Tax Insurance Administration Capital Recovery	60% of DOC 1% of TCC 1% of TCC 2 % of TCC 0.16275	\$94,367 \$7,868 \$7,868 \$15,736 \$128,048
TOTAL ANNUALIZED COST =	1	\$411,165
Notes:		
Maximum no. of turns/yr = Operating labor cost (\$/hr) = Maintenance labor cost (\$/hr) = Due to the corrosive nature of specialty at ATI, capital recovery assumes 10 ye		

ATI FLAT ROLLED PRODUCTS HOLDINGS - VANDERGRIFT FACILITY

RACT TOP-DOWN ANALYSIS

Source 121B - No. 91 A&P Line Annealing Furnace (42 MMBtu/hr)

NOx RACT PROPOSAL

CONTROL OPTIONS:					
Control Technology	Typical Control Effectiveness	Technical Feasibility			
SCR + LNB	95 - 97%	Yes (1)			
SCR	50 - 95%	Yes			
SNCR	30 - 50%	No (2)			
LNB + FGR	30 - 60%	Yes			
LNB	20 - 50%	Yes (3)			

Notes:

LNB portion currently installed and operating.
 See RACT Proposal for technical basis for infeasibility.
 Currently installed and operating.

CONTROL OPTION COSTS:							
Control Technology	Estimated Control % from Additional Technology	Controlled Emissions (tons/yr)	Emission Reduction (tons/yr)	Total Annualized Costs (\$/yr)	Total Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)	Potential for Adverse or Additional Environmental Impacts
<u>BASELINE CONDITION:</u> LNB (91 Line Annealing Furnace baseline emission rate for NOx = 24.9 TPY. This is existing Title V limit, which is based on LNB control technology.)	currently installed	24.9	-	-	-	-	
Additional control technology #1: LNB + SCR	80%	5	20	\$2,201,494	\$110,517	\$239,669	
Additional control technology #2: LNB + FGR	50%	12	12	\$411,165	\$33,025	\$33,025	

SOURCE 121B - No. 91 A&P Line Annealing Furnace

CONTROL OPTION -SELECTIVE CATALYTIC REDUCTION (SCR)

CAPITAL COST ES	IIMATE [*]	ANNUALIZ	ZED COST ESTIMATE	
ost Item	\$	Cost Item	Cost Factor	\$
IRECT COSTS:		DIRECT OPERATING COSTS:		
urchase Equipment Costs:		Operating Labor	0.5 hr/turn	\$49,93
		Supervision	15% of labor	\$7,48
control Equipment	EC \$2,251,014			*0 40 0
loods & Ductwork	\$320,408	Operating Materials *	-	\$312,2
iping	\$165,025	(ammonia water)		
lectrical	\$75,281	Maintenance Labor	0.5 hr/turn	\$49,93
strumentation & Controls	\$98,273	Materials	100% of labor	\$49,93
oundations	\$13,350			
eelwork	\$38,938	Utilities - Natural Gas	\$6.69/mcf	\$0
te Preparation	\$9,271	(assumes auxiliary burner not	required for Anneal Furnad	,
uildings/Demo.	included above	Waste Disposal	-	\$0
laterial Markup (10%)	\$29,786			
abor Markup (20%)	\$134,234	Wastewater Treatment	-	\$0
quipment Markup (5%)	\$100,127			
ales Tax (7%)	\$161,027	Total Direct Operating Costs (DO	C) =	\$469,54
eight (FOB Jobsite)	\$92,017		,	
otal Purchased Equip. Cost (PEC)	\$3,488,752	INDIRECT OPERATING COSTS:		
stallation:		Overhead	60% of DOC	\$281,72
		Property Tax	1% of TCC	\$71,52
ngr & Const. Management	\$418,651	Insurance	1% of TCC	\$71,52
onst. Mobilization	\$122,107	Administration	2 % of TCC	\$143,05
ontractor Fees	\$279,100	Capital Recovery	0.16275	\$1,164,1
tartup Testing	\$34,889	- 1		
erformance Testing	\$55,626			
ontingencies	\$348,874	TOTAL ANNUALIZED COST =		\$2,201,4
otal Installation Cost	\$1,259,248			
		Notes:		
otal Direct Costs (DC) =	\$4,748,000			
		Maximum no. of turns/yr =	1095	
		Operating labor cost (\$/hr) =	91.20	
		Maintenance labor cost (\$/hr) =	91.20	
C \$ based on 2015 actual installation.		Due to the corrosive nature of spe	ecialty steel annealing and	acid pickling
C 1/2015 is escalated to 8/2022 using Ch	emical Engineering Equipment Indices.	at ATI, capital recovery assumes		
Jan-15	694.8			
Aug-22	1046.7			
	1.51			

TOTAL CAPITAL COST (TCC) =

\$7,152,751

* NOTES:
1) Total Direct Cost (DC) from 2015 actual SCR installation (Midland, PA).
2) Operating Materials Cost based on 2018 cost/usage info at existing installation with EC Escalation Factor to 8/2022, and ratioed to applicable source's production tons.

SOURCE 121B - No. 91 A&P Line Annealing Furnace

CONTROL OPTION - LOW NOX BURNERS + FLUE GAS RECIRCULATION

CAPITAL CC	OST ESTIMATE
Cost Item	\$
DIRECT COSTS:	
Purchase Equipment Costs:	
Control Equipment Hoods & Ductwork Piping Electrical Instrumentation & Controls Foundations Steelwork Site Preparation Buildings Material Markup (10%) Labor Markup (20%) Equipment Markup (5%) Sales Tax (6%)	EC \$96,400 \$131,200 \$47,500 \$15,400 \$14,500 \$2,500 \$5,400 \$1,600 \$0 \$7,143 \$34,935 \$3,420 \$9,788
Freight (FOB Jobsite)	\$5,593
Total Purchased Equip. Cost (PEC)	\$375,378
Installation:	
Engr & Const. Management Const. Mobilization Contractor Fees Startup Testing Performance Testing Contingencies	\$45,045 \$13,138 \$30,030 \$3,754 \$15,000 \$37,538
Total Installation Cost	\$144,505
Total Direct Costs (DC) =	\$519,884
	ing Chemical Engineering Equipment In ing Chemical Engineering Equipment In
Jan-96 Jun-16 Aug-22	645.3
EC Escalation Factor = EC Escalation Factor (8/22) =	

TOTAL CAPITAL COST (TCC) =	

\$786,775

Cost Item	Cost Factor	\$
DIRECT OPERATING COSTS:		
Operating Labor Supervision	0.5 hr/turn 15% of labor	\$49,930 \$7,489
Operating Materials	-	\$0
Maintenance Labor Materials	0.5 hr/turn 100% of labor	\$49,930 \$49,930
Utilities - Natural Gas	\$6.69/mcf	\$0
Waste Disposal	-	\$0
Wastewater Treatment	-	\$0
Total Direct Operating Costs (DOC) =		\$157,279
INDIRECT OPERATING COSTS:		
Overhead Property Tax Insurance Administration Capital Recovery	60% of DOC 1% of TCC 1% of TCC 2 % of TCC 0.16275	\$94,367 \$7,868 \$7,868 \$15,736 \$128,048
TOTAL ANNUALIZED COST =	1	\$411,165
Notes:		
Maximum no. of turns/yr = Operating labor cost (\$/hr) = Maintenance labor cost (\$/hr) = Due to the corrosive nature of specialty at ATI, capital recovery assumes 10 ye		

ATI FLAT ROLLED PRODUCTS - VANDERGRIFT FACILITY

RACT TOP-DOWN ANALYSIS

Source 120D - 90 A&P Line - Mixed Acid Pickling

NOx RACT PROPOSAL

CONTROL OPTIONS:					
Control Technology	Typical Control Effectiveness	Technical Feasibility			
Selective Catalytic Reduction (SCR)	40 - 90 %	Yes (See Note 1)			
Hydrogen Peroxide Injection	70 - 80 %	Yes (See Note *2)			
Selective Non-Catalytic Reduction (SNCR)	30 -50 %	No (See Note 3)			
Absorption (Wet Scrubber) plus Chemical Reaction	on 40 - 60 %	Yes (See Note 4)			
Absorption (Wet Scrubber)	10 - 20 %	Yes (N/A, see Note 5)			

Notes:

1. Temperature too low to apply this technology, auxiliary burner required.

*2. 90L does not use "deep tank" design, therefore emission reduction may be lower than estimated; however, hydrogen peroxide injection is included in cost analysis.
3. See RACT Proposal for technical basis for infeasibility.

4. Currently installed and operating

5. This technology is not applicable for cost analysis - current technology (which includes chemical reaction) provides better NOx reduction.

CONTROL OPTION COSTS:							
Control Technology	Estimated Control % from Additional Technology	Controlled Emissions (tons/yr)	Emission Reduction (tons/yr)	Total Annualized Costs (\$/yr)	Total Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)	Potential for Adverse or Additional Environmental Impacts
BASELINE CONDITION: Absorption plus Chemical Reaction (90 Line Mixed Acid Pickling baseline emission rate for NOx = 103 TPY. This is existing Title V limit, which is based on absorption plus chemical reaction control technology.)	currently installed	103	-	-	-	-	
<u>Additional control technology #1:</u> SCR	80	21	82	\$2,507,287	\$30,428	\$76,988	additional emissions from duct burner
<u>Additional control technology #2:</u> Hydrogen Peroxide Injection	75	26	77	\$2,110,797	\$27,324	\$27,324	
<u>Additional control technology #3:</u> Absorption	15	N/A - current	technology (which includes	chemical reaction) provides better N	Ox reduction.

SOURCE 120D - #90 A&P Mixed Acid Pickling

CONTROL OPTION -SELECTIVE CATALYTIC REDUCTION (SCR)

CAPITAL COST ESTI	MATE*	ANNUALIZED C	OST ESTIMATE	
ost Item	\$	Cost Item	Cost Factor	\$
RECT COSTS:		DIRECT OPERATING COSTS:		
urchase Equipment Costs:		Operating Labor	0.5 hr/turn	\$49,930
ontrol Equipment	EC \$2,251,014	Supervision	15% of labor	\$7,489
oods & Ductwork	\$320,408	Operating Materials *	_	\$356,877
ping	\$165,025	(ammonia water)		<i><i><i>vccc,c..</i></i></i>
ectrical	\$75,281	Maintenance Labor	0.5 hr/turn	\$49,930
strumentation & Controls	\$98,273	Materials	100% of labor	\$49,930
bundations	\$13,350	Materials	100 /0 01 10001	ψ+0,000
eelwork	\$38,938	Utilities - Natural Gas	\$6.69/mcf	\$146,51 ²
te Preparation	\$9,271	Guilles - Natural Gas	φ0.03/1101	φ1+0,51
uildings/Demo.	included above	Waste Disposal	_	\$0
aterial Markup (10%)	\$29,786	Wasie Dispusal	-	φυ
	\$29,700 \$134,234	Wastewater Treatment		¢0
abor Markup (20%)		wastewater Treatment	-	\$0
quipment Markup (5%)	\$100,127			* 000 000
ales Tax (7%)	\$161,027	Total Direct Operating Costs (DOC) =		\$660,667
eight (FOB Jobsite)	\$92,017			
otal Purchased Equip. Cost (PEC)	\$3,488,752	INDIRECT OPERATING COSTS:		
stallation:		Overhead	60% of DOC	\$396,400
		Property Tax	1% of TCC	\$71,528
ngr & Const. Management	\$418,651	Insurance	1% of TCC	\$71,528
onst. Mobilization	\$122,107	Administration	2 % of TCC	\$143,055
ontractor Fees	\$279,100	Capital Recovery	0.16275	\$1,164,11
artup Testing	\$34,889			
erformance Testing	\$55,626			
ontingencies	\$348,874	TOTAL ANNUALIZED COST =		\$2,507,28
otal Installation Cost	\$1,259,248			
		Notes:		
otal Direct Costs (DC) =	\$4,748,000			
		Maximum no. of turns/yr = Operating labor cost (\$/hr) =	1095 91.20	
		Maintenance labor cost (\$/hr) =	91.20	
C \$ based on 2015 actual installation		Due to the corrosive nature of specialty		
C 1/2015 is escalated to 8/2022 using Cher	nical Engineering Equipment Indices.	at ATI, capital recovery assumes 10 yea	ır life (term) at 10%	interest rate.
Jan-15	694.8			
Aug-22	1046.7			
EC Escalation Factor =	1.51			

TOTAL CAPITAL COST (TCC) =

\$7,152,751

* NOTES:
1) Total Direct Cost (DC) from 2015 actual SCR installation (Midland, PA).
2) Operating Materials Cost based on 2018 cost/usage info at existing installation with EC Escalation Factor to 8/2022, and ratioed to applicable source's production tons.

#90 A&P Min

SOURCE 120D - #90 A&P Mixed Ad	cid Pickling
CONTROL OPTION -	HYDROGEN PEROXIDE INJECTION
CAPITAL CO	OST ESTIMATE
Cost Item	\$
DIRECT COSTS:	
Purchase Equipment Costs:	
Control Equipment Hoods & Ductwork Piping Electrical Instrumentation & Controls Foundations Steelwork Site Preparation Buildings Material Markup (10%) Labor Markup (20%) Equipment Markup (5%) Sales Tax (7%) Freight (FOB Jobsite)	EC \$204,000 \$13,700 \$8,500 \$6,200 \$5,600 \$2,000 \$2,500 \$1,500 \$0 \$1,645 \$11,111 \$8,600 \$13,191 \$7,538
Total Purchased Equip. Cost (PEC)	\$286,085
Installation:	
Engr & Const. Management Const. Mobilization Contractor Fees Startup Testing Performance Testing Contingencies	\$34,330 \$10,013 \$22,887 \$2,861 \$15,000 \$28,608
Total Installation Cost	\$113,699
Total Direct Costs (DC) =	\$399,784
	ng Chemical Engineering Equipment Indices. ing Chemical Engineering Equipment Indices.
Jan-96 Jun-16 Aug-22	645.3
EC Escalation Factor = EC Escalation Factor (8/22) =	

ANNUALIZED CC	OST ESTIMATE	
Cost Item	Cost Factor	\$
DIRECT OPERATING COSTS:		
Operating Labor Supervision	0.5 hr/turn 15% of labor	\$49,930 \$7,489
Operating Materials (peroxide) *	-	\$1,037,612
Maintenance Labor Materials	0.5 hr/turn 100% of labor	\$49,930 \$49,930
Utilities - Natural Gas	\$6.69/mcf	\$0
Waste Disposal	-	\$0
Wastewater Treatment	-	\$0
Total Direct Operating Costs (DOC) =		\$1,194,891
INDIRECT OPERATING COSTS:		
Overhead Property Tax Insurance Administration Capital Recovery	60% of DOC 1% of TCC 1% of TCC 2 % of TCC 0.16275	\$716,935 \$9,814 \$9,814 \$19,627 \$159,717
TOTAL ANNUALIZED COST =	I	\$2,110,797
Notes:		
Maximum no. of turns/yr = Operating labor cost (\$/hr) = Maintenance labor cost (\$/hr) = Due to the corrosive nature of specialty at ATI, capital recovery assumes 10 ye		

TOTAL CAPITAL COST (TCC) =

\$981,365

* NOTES:

90L pickling does not use "deep tank" design; this technology may not be feasible.
 Operating Materials Cost based on 2018 cost/usage info at existing facility, and ratioed to current source production tons.

ATI FLAT ROLLED PRODUCTS - VANDERGRIFT FACILITY

RACT TOP-DOWN ANALYSIS

Source 121E - 91 A&P Line - Mixed Acid Pickling

NOx RACT PROPOSAL

CONTROL OPTIONS:					
Control Technology	Typical Control Effectiveness	Technical Feasibility			
Selective Catalytic Reduction (SCR)	40 - 90 %	Yes (See Note 1)			
Hydrogen Peroxide Injection	70 - 80 %	Yes (See Note *2)			
Selective Non-Catalytic Reduction (SNCR)	30 - 50 %	No (See Note 3)			
Absorption (Wet Scrubber) plus Chemical Re	eaction 40 - 60 %	Yes (See Note 4)			
Absorption (Wet Scrubber)	10 - 20 %	Yes (N/A, see Note 5)			
Absorption (Wet Scrubber)	10 - 20 %	Yes (N/A, see Note 5)			

Notes:

1. Temperature too low to apply this technology, auxiliary burner required.

*2. 91L does not use "deep tank" design, therefore emission reduction may be lower than estimated; however, hydrogen peroxide injection included in cost analysis.
3. See RACT Proposal for technical basis for infeasibility.

4. Currently installed and operating

5. This technology is not applicable - current technology (which includes chemical reaction) provides better NOx reduction.

		CO	NTROL OPTI	ION COSTS:			
Control Technology	Estimated Control % from Additional Technology	Emission Reduction (tons/yr)	Controlled Emissions (tons/yr)	Total Annualized Costs (\$/yr)	Total Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)	Potential for Adverse or Additional Environmental Impacts
<u>BASELINE CONDITION:</u> Absorption plus Chemical Reaction (91 Line Mixed Acid Pickling baseline emission rate for NOx = 57.4 TPY. This is existing Title V limit, which is based on absorption plus chemical reaction control technology.)	currently installed	-	57.4	-	-	-	
<u>Additional control technology #1:</u> SCR	80	46	11.5	\$2,435,912	\$53,047	\$185,588	additional emissions from duct burner
<u>Additional control technology #2:</u> Hydrogen Peroxide Injection	75	43	14.4	\$1,903,275	\$44,211	\$44,211	
<u>Additional control technology #3:</u> Absorption	15	N/A - current	technology (v	which includes	chemical reaction) provides better N	Ox reduction.

SOURCE 121E - #91 A&P Mixed Acid Pickling

SELECTIVE CATALYTIC REDUCTION (SCR) CONTROL OPTION -

CAPITAL COST ESTI	MATE*	ANNUALIZED	COST ESTIMATE	
ost Item	\$	Cost Item	Cost Factor	
IRECT COSTS:		DIRECT OPERATING COSTS:		
urchase Equipment Costs:		Operating Labor	0.5 hr/turn	:
		Supervision	15% of labor	
ontrol Equipment	EC \$2,251,014			
oods & Ductwork	\$320,408	Operating Materials *	-	9
ping	\$165,025	(ammonia water)		
ectrical	\$75,281	Maintenance Labor	0.5 hr/turn	
strumentation & Controls	\$98,273	Materials	100% of labor	
oundations	\$13,350			
eelwork	\$38,938	Utilities - Natural Gas	\$6.69/mcf	9
te Preparation	\$9,271			
uildings/Demo.	included above	Waste Disposal	-	
aterial Markup (10%)	\$29,786			
abor Markup (20%)	\$134,234	Wastewater Treatment	-	
uipment Markup (5%)	\$100,127			
ales Tax (7%)	\$161,027	Total Direct Operating Costs (DOC) =		9
eight (FOB Jobsite)	\$92,017	,		
al Purchased Equip. Cost (PEC)	\$3,488,752	INDIRECT OPERATING COSTS:		
stallation:		Overhead	60% of DOC	:
		Property Tax	1% of TCC	
gr & Const. Management	\$418,651	Insurance	1% of TCC	
nst. Mobilization	\$122,107	Administration	2 % of TCC	
ntractor Fees	\$279,100	Capital Recovery	0.16275	\$
rtup Testing	\$34,889	· ·		
rformance Testing	\$55,626			
ntingencies	\$348,874	TOTAL ANNUALIZED COST =		\$
tal Installation Cost	\$1,259,248			
		Notes:		
otal Direct Costs (DC) =	\$4,748,000			
		Maximum no. of turns/yr =	1095	
		Operating labor cost (\$/hr) =	91.20	
		Maintenance labor cost (\$/hr) =	91.20	
\$ based on 2015 actual installation		Due to the corrosive nature of specialty		
1/2015 is escalated to 8/2022 using Chen	nical Engineering Equipment Indices.	at ATI, capital recovery assumes 10 ye	ear lite (term) at 10%	intere
Jan-15	694.8			
Aug-22	1046.7			
EC Escalation Factor =	1.51			
OTAL CAPITAL COST (TCC) =	\$7,152,751			

* NOTES:

Total Direct Cost (DC) from 2015 actual SCR installation (Midland, PA).
 Operating Materials Cost based on 2018 cost/usage info at existing installation with EC Escalation Factor to 8/2022, and ratioed to applicable source's production tons.

SOURCE 121E - #91 A&P Mixed A	cid Pickling
CONTROL OPTION -	HYDROGEN PEROXIDE INJECTION
CAPITAL C	OST ESTIMATE
Cost Item	\$
DIRECT COSTS:	
Purchase Equipment Costs:	
Control Equipment Hoods & Ductwork Piping Electrical Instrumentation & Controls Foundations Steelwork Site Preparation Buildings Material Markup (10%) Labor Markup (20%) Equipment Markup (5%) Sales Tax (7%) Freight (FOB Jobsite) Total Purchased Equip. Cost (PEC)	EC \$204,000 \$13,700 \$8,500 \$6,200 \$5,600 \$2,000 \$1,500 \$1,500 \$0 \$1,645 \$11,111 \$8,600 \$13,191 \$7,538 \$286,085
Installation:	
Engr & Const. Management Const. Mobilization Contractor Fees Startup Testing Performance Testing Contingencies	\$34,330 \$10,013 \$22,887 \$2,861 \$15,000 \$28,608
Total Installation Cost	\$113,699
Total Direct Costs (DC) =	\$399,784
DC 6/2016 is escalated to 8/2022 us Jan-9 Jun-11 Aug-2	6 645.3 2 1046.7
EC Escalation Factor : EC Escalation Factor (8/22) :	

Cost Item	Cost Factor	\$
DIRECT OPERATING COSTS:		
Operating Labor Supervision	0.5 hr/turn 15% of labor	\$49,930 \$7,489
Operating Materials (peroxide) *	-	\$907,911
Maintenance Labor Materials	0.5 hr/turn 100% of labor	\$49,930 \$49,930
Utilities - Natural Gas	\$6.69/mcf	\$0
Waste Disposal	-	\$0
Wastewater Treatment	-	\$0
Total Direct Operating Costs (DOC) =		\$1,065,190
INDIRECT OPERATING COSTS:		
Overhead Property Tax Insurance Administration Capital Recovery	60% of DOC 1% of TCC 1% of TCC 2 % of TCC 0.16275	\$639,114 \$9,814 \$9,814 \$19,627 \$159,717
TOTAL ANNUALIZED COST =		\$1,903,275
Notes:		
Maximum no. of turns/yr = Operating labor cost (\$/hr) = Maintenance labor cost (\$/hr) = Due to the corrosive nature of specialty at ATI, capital recovery assumes 10 ye		nd acid pickling

TOTAL CAPITAL COST (TCC) =

\$981,365

* NOTES:

Operating Materials Cost based on 2018 cost/usage info at existing facility, and ratioed to current source production tons.
 91L pickling does not use "deep tank" design; this technology may not be feasible.

ATTACHMENT 2

SOURCE INFORMATION AND EMISSIONS

	ustion Operational Inv	entory		
(Complete this section	on for each combustion so	urce at this site. D	uplicate this section as neede	ed).
For renewals, reviev listed in Section 3 of		ed information and	add additional sections for ar	ny new combustion unit
5.1 General Sour	ce Information			
a. Unit ID: 032	t	o. Company Des	ignation: Boiler No. 2	
c. Plan Approval o	r Operating Permit No.:	Title V Operatir	ng Permit No. 65-00137	
d. Manufacturer:	Cleaver Brooks	e. Model No.	: CB-400-600	
f. Source Descript	ion: Combustion Unit			
g. Rated Heat Inpu	t/Thruput:26.1 MM Btu	/hour	h. Installation Date: 06/15	/1989
i. Exhaust Temperature _	<u>≅325</u> Units <u>°</u> F	j. Exhaust % Moisture	k. Exhaust Flow ≅5Volume:	≅1500 ACFM
	ssions unit uses a control o		•	
5.3 Exhaust Syst	be completed if both boxes em Components ne exhaust components are	are checked "Yes	tant are at least 100 percent (.")	of major source amount.
5.3 Exhaust Syst Explain how th	be completed if both boxes em Components ne exhaust components are	are checked "Yes e configured:	.")	
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th	be completed if both boxes em Components ne exhaust components are	are checked "Yes e configured:	.")	
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow
5.3 Exhaust Syst Explain how th From Unit	be completed if both boxes em Components ne exhaust components are Unit Description	are checked "Yes e configured: To Unit	.") Unit Description	Percent Flow

For liste 5.1 a.	renewals, review d in Section 3 of	and correct any pre-printe this application. ce Information		plicate this section as need	ed).
liste 5.1 a.	d in Section 3 of General Sourc	this application.	ed information and a	dd additional sections for a	
a.					ny new combustion unit
	Unit ID: 116	h			
С.		U	. Company Desig	nation: Miscellaneous Sp	pace Heaters
	Plan Approval or	Operating Permit No.:	Title V Operating	Permit No. 65-00137	
d.	Manufacturer:	Various	e. Model No.:	Various	
f.	Source Descripti	on: Miscellaneous Space	ce Heaters for perso	nnel comfort	
g.	Rated Heat Inpu	t/Thruput: 90 MM Btu/ho	bur h.	Installation Date: Vario	bus
	Exhaust Temperature	NA Units	j. Exhaust % Moisture	k. Exhaust Flow Volume:	ACFM
(Add	aenaum a must r				-
5.3	Exhaust Syste	em Components ee exhaust components are		• • • • • • • • • • • • • • • • • • • •	
	Exhaust Syste	em Components		Unit Description	Percent Flow
	Exhaust Syste Explain how th	em Components le exhaust components are	e configured:		Percent Flow 100
	Exhaust Syste Explain how th From Unit	em Components le exhaust components are Unit Description	e configured: To Unit	Unit Description	n
	Exhaust Syste Explain how th From Unit	em Components le exhaust components are Unit Description	e configured: To Unit	Unit Description	n
	Exhaust Syste Explain how th From Unit	em Components le exhaust components are Unit Description	e configured: To Unit	Unit Description	n
	Exhaust Syste Explain how th From Unit	em Components le exhaust components are Unit Description	e configured: To Unit	Unit Description	n

Se	ction 7 - Proces	s Operational Invent	ory				
(Co	mplete this section	n for each process at this	s site. Duplicate	this section as	needed).		
	renewals, review tion 3 of this appli	and correct any pre-prir cation.	nted information	and add addit	ional section	is for any n	ew process listed in
7.1	General Sourc	e Information					
а.	Unit ID: 120A		b. Company	Designation:	No. 90 Line	e Annealing	Furnace
с.	Plan Approval or	Operating Permit No.:	Title V	Operating Peri	mit No. 65-00)137	
d.	Manufacturer:	Surface Combustion Cor	rp e.	Model No.:	NA		
f.	Source Description	on: Process					<u> </u>
g.	Rated Heat Input/	Thruput: 50.5 MMBTu	u per hour	h. Insta	lation Date:	1956	
i.	Exhaust Temperature≘	:1000 Units <u>°F</u>	j. Exhaust % Moisture		. Exhaust Flow Volume:	≅26,00	DACFM
(Ac	amou Idendum 3 must be Exhaust Syste	ntial precontrol emission int. e completed if both are c m Components e exhaust components ar	hecked "Yes")	polititant are		percent c	or the major source
	From Unit	Unit Description	To Un	it and the second	Unit Descrij	otion	Percent Flow
ask.	120A	Process	S120/	Contrates the trade of the second	oint of Air En		100
<u> </u>			0120				100
		2					
	=						
		6					
			_				
					<u> </u>		
1							

Section	7 - Proces	ss Operational Inv	ventory		·····			
(Complete	e this section	on for each process a	at this site.	Duplicate this	section as	s needed).		
	vals, reviev of this app	v and correct any pr lication.	e-printed inf	formation and	add addi	tional section	s for any new	v process listed in
7.1 Ger	neral Sour	ce Information						
a. Unit II	D: <u>120D</u>		b.	Company De	signation:	No. 90 Line	e Mixed acid F	Pickling
c. Plan /	Approval or	Operating Permit N	o.: _	Fitle V Operat	ng Permit	No. 65-0013	7	
d. Manu	facturer:	Production Machine	ery e	e. Model No	».: <u></u>	IA		
f. Sourc	e Descripti	ion: Process						·.
g. Rateo	l Heat Inpu	t/Thruput: 40 Tons	s per hour		h. Insta	llation Date:	1991	
i. Exhau Temp	ust perature	≅120 Units		xhaust Moisture	k ≅5	. Exhaust Flow Volume:	≅10,000	ACFM
7.2 CA	M Informat	tion						
Yes No ⊠ □ ⊠ □	Emi	ssions unit uses a co ential precontrol emi unt.			•			
(Addendu		be completed if both	are checked	d "Yes")				
	-	em Components						
r		e exhaust componei	nts are conf	igured:				
Fror	n Unit	•		igured: To Unit		Unit Descri	otion	Percent Flow
LOT PSA (R.D.Y. STAT	n Unit 20D	e exhaust componei		AUG		Unit Descrip Control De	Contaction of the states	Percent Flow 100
1:		Unit Descripti	on	To Unit	F		vice	
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100
1:	20D	Unit Descripti	on	To Unit C120D	F	Control De	vice	100

s Operational Invento	ry			
n for each process at this	site. Duplicate	this section as	needed).	
and correct any pre-print cation.	ed information	and add addit	ional sections for any	y new process listed in
e Information				
	b. Compan	y Designation:	No. 90 Line Strip D	ryer
Operating Permit No.:	Title V	Operating Perr	mit No. 65-00137	
Spencer Turbine Co.	e.	Model No.:	2040-H-MOD	
on: Process				
Thruput: 1.3 MMBTu p	er hour	h. Instal	lation Date: 1990	
Units	j. Exhaust % Moisture		. Exhaust Flow Volume:	ACFM
ntial precontrol emissions int. e completed if both are ch m Components	of applicable	•		
Unit Description	To U	nit	Unit Description	Percent Flow
	29/2020 States bedan	Sector Contractors - Balletin		100
	n for each process at this and correct any pre-print cation. e Information Operating Permit No.: Spencer Turbine Co. on: Process (Thruput: 1.3 MMBTu p - Units - on sions unit uses a control d atial precontrol emissions int. e completed if both are ch m Components	and correct any pre-printed information cation. e Information b. Compan Operating Permit No.: Title V Spencer Turbine Co. e. on: Process Thruput: 1.3 MMBTu per hour	n for each process at this site. Duplicate this section as and correct any pre-printed information and add addit cation. e Information b. Company Designation: Operating Permit No.:	n for each process at this site. Duplicate this section as needed). and correct any pre-printed information and add additional sections for any cation. e Information

Section 7 - Process	Operational Inventor	r y	· · · · · · · · · · · · · · · · · · ·	
(Complete this section	for each process at this s	site. Duplicate this sec	tion as needed).	
For renewals, review a Section 3 of this applic		ed information and add	d additional sections for a	ny new process listed in
7.1 General Source	Information			
a. Unit ID: 121A		b. Company Design	ation: No. 91 Line Strip	Dryers Nos. 1 and 2
c. Plan Approval or C	Operating Permit No.:	Title V Operatir	ng Permit No. 65-00137	
d. Manufacturer: H	loffman Dryer	e. Model	Dryer No. 1 – 54 No.: <u>Dryer No. 2 - 21</u>	
f. Source Description	n: Process			
g. Rated Heat Input/1	Thruput: 1.3 MMBTu po	erhour h.	Installation Date: 1995	
i. Exhaust Temperature	- Units -	j. Exhaust % Moisture	k. Exhaust Flow Volume:	- ACFM
 Potent amour (Addendum 3 must be 7.3 Exhaust System 	ions unit uses a control d ial precontrol emissions nt. completed if both are che	of applicable pollutar ecked "Yes")	iance with emission limita nt are at least 100 perce	
From Unit	Unit Description	To Unit	Unit Description	Percent Flow
121A	Process	Z121A	Fugutuve	100
		·		
			-	
				8

ss Operational Invento	rv				
•		e this section as	needed)		
			-	for any new	v process listed in
lication.				s for any nev	v process listed in
e Information					
	b. Compa	ny Designation:	No. 91 Line	Annealing F	urnace
Operating Permit No.:	Title \	/ Operating Peri	mit No. 65-00 ⁴	137	
Drever	e.	Model No.:	J-3847	·	
on: Process					
t/Thruput: 42 MMBTu pe	er hour	_ h. Instal	lation Date:	1995	
≅1000 UnitsP	j. Exhaust % Moistur		. Exhaust Flow Volume:	≅33,085	ACFM
ntial precontrol emissions unt. e completed if both are ch em Components	s of applicabl necked "Yes")	•			
	-	nit	Unit Descript	tion	
the second management of the second se		THE REAL PROPERTY OF	unit Descrip	tion	Percent Flow
		a standard in the second	oint of Air Em	ission	Percent Flow 100
	on for each process at this v and correct any pre-print lication. ce Information Operating Permit No.: Drever on: Process t/Thruput: 42 MMBTu p ainterim control emissions unit uses a control of ential precontrol emissions unt. De completed if both are ch em Components	on for each process at this site. Duplicate v and correct any pre-printed information ilication. ce Information b. Compare Operating Permit No.: <u>Title N</u> Drever e. on: <u>Process</u> t/Thruput: <u>42 MMBTu per hour</u> if <u>1000</u> Units <u>oF</u> j. Exhaust % Moistur tion ssions unit uses a control device to achies ential precontrol emissions of applicable unt. be completed if both are checked "Yes") em Components e exhaust components are configured: <u>Unit Description</u> <u>To U</u>	on for each process at this site. Duplicate this section as v and correct any pre-printed information and add addit lication. ce Information b. Company Designation: • Operating Permit No.: • Operating Permit No.: • Drever Drever • Model No.: •	on for each process at this site. Duplicate this section as needed). v and correct any pre-printed information and add additional sections lication. ce Information b. Company Designation: No. 91 Line operating Permit No.: Title V Operating Permit No. 65-00 Drever e. Model No.: J-3847 on: Process t/Thruput: 42 MMBTu per hour h. Installation Date: j. Exhaust Flow volume: i. Exhaust ion % Moisture ≅5 volume: volume: ion or e completed if both are checked "Yes") e exhaust components are configured:	on for each process at this site. Duplicate this section as needed). v and correct any pre-printed information and add additional sections for any new lication. ce Information b. Company Designation: No. 91 Line Annealing F Operating Permit No.:

Section 7 - Process Operational Inventory							
(Complete this section for each process at this site. Duplicate this section as needed).							
For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.							
7.1 General Source Information							
a. Un	Unit ID: 121E b. Company Designation: No. 91 Line Mixed acid Pickling						
c. Plan Approval or Operating Permit No.: Title V Operating Permit No. 65-00137							
d. Manufacturer: Mannesmann-Demag e. Model No.: NA							
f. Source Description: Process							
g. Rated Heat Input/Thruput: <u>35 Tons per hour</u> h. Installation Date: <u>1995</u>							
1	haust mperature	≝110 Units	j. Exhaust % Moisture	k. ≅20	Exhaust Flow Volume:	≅2,400	ACFM
 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount. (Addendum 3 must be completed if both are checked "Yes") 7.3 Exhaust System Components Explain how the exhaust components are configured: 							
	rom Unit	Unit Description	To Unit		Unit Descrip		Percent Flow
的主要的方	121E	Process	C121E		Control Dev		100
	C121E	Control Device	S121E	Po	bint of Air Err		100
			-				
			· · · · · · · · · · · · · · · · · · ·				
			-			l	

2700-PM-AQ0010 Rev. 8/2009

Se	Section 9 - Stack/Flue Information (duplicate this section as needed)									
Fo	r renewals, review and o	correct any pr				,	y new stack/	flue listed in		
Se	ction 3 of this application General Stack/Vent									
9.1	General Stack/vent	mormation								
a.	Unit ID: S031		_ b.	Company D	esignation:	Boiler No. 1 Stac	k			
с.	Discharge Type: Ve	ertical Stack		e come las c						
d.	Diameter (ft):	2	Height (ft):	5	5 B	ase Elevation (ft):	102	.0		
е.	Exhaust Temperature:	≅325 ºF	_ Exhaust %	6 Moisture:	5	Exhaust Veloc	ity: (ft/sec)	≅8		
f.	Exhaust Volume:	≅1,500	ACFM		_ Exhaust \	Volume:	SCF	N		
g.	Distance to Nearest Pr	operty Line (f	t):			≅230				
h.	Weather Cap?:	Yes		0						
i.	Used by Sources:				031					
j.	Latitude:	40.60)5		Longit	ude:	-79.568			
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point	:			
a.	Unit ID: S032		b.	Company D	esignation:	Boiler No. 2 Stac	k			
c.	Discharge Type: Ve	ertical Stack								
d.	Diameter (ft):	2	Height (ft):	5	5B	Base Elevation (ft):	102	20		
e.	Exhaust Temperature:	≅325 °F	Exhaust %	6 Moisture:	≅5	Exhaust Velo	city: (ft/sec)	8 ≅8		
f.	Exhaust Volume:	≅1,500	ACFM		_ Exhaust \	Volume:	SCFI	N		
g.	Distance to Nearest Pr	operty Line (f	t):		10	≅230				
h.	Weather Cap?:	🗌 Yes		0						
i.	Used by Sources:				032					
j .	Latitude:	40.60	05		Longit	ude:	-79.568			
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point	::			

Se	Section 9 - Stack/Flue Information (duplicate this section as needed)								
	r renewals, review ar ction 3 of this applica		e-printed info	prmation and	add additio	onal sections for any	new stack/	flue listed in	
9.1	General Stack/Ve	ent Information							
a.	Unit ID: S120		b.	Company De	signation:	No. 90 Line Sulfurio Fume Scrubber Sta		l acid	
c.	Discharge Type:	Vertical Unobstru	ucted Openii	ng					
d.	Diameter (ft):	4	Height (ft):	70	Ba	ase Elevation (ft):	102	:0	
e.	Exhaust Temperatu	re:120 ºF	Exhaust %	Moisture:	≅20	Exhaust Velocity	/: (ft/sec)	≅13	
f.	Exhaust Volume:	≅10,000 A	CFM		Exhaust V	/olume:	SCF	N	
g.	Distance to Nearest	Property Line (ft)):	8		≅200			
h.	Weather Cap?:	Yes	🛛 No)					
i.	Used by Sources:	031							
j.	Latitude:	40.604	4		Longitu	ude:	-79.568		
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point:			
a.	Unit ID: S120A		b.	Company De	signation:	No. 90 Line Anneal	ing Furnac	e Stack	
c.	Discharge Type:	Vertical Unobstru	ucted Openii	ng					
d.	Diameter (ft):	6	Height (ft):	50	Ba	ase Elevation (ft): _	102	.0	
e.	Exhaust Temperatu	re:1,000 ºF	_ Exhaust %	Moisture:	≅5	Exhaust Velocit	y: (ft/sec) _	0.2_8	
f.	Exhaust Volume:	≅300 A			Exhaust V	/olume:	SCFI	v	
g.	Distance to Nearest	Property Line (ft)):			≅200			
h.	Weather Cap?:	🗌 Yes	🛛 No)					
i.	Used by Sources:	032							
j.	Latitude:	40.604	4		Longitu	ıde:	-79.568		
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point:			

Se	Section 9 - Stack/Flue Information (duplicate this section as needed)									
	r renewals, review a ction 3 of this application		e-printed informatio	n and add ad	ditional sections fo	r any new stack/	flue listed in			
9.1	•••									
a.	Unit ID:S121B		_ b. Compa	iny Designati	on: No. 91 Line A	nnealing Furnace	e Vent			
С.	Discharge Type:	Vent Exhaust								
d.	Diameter (ft):	11.1 ft ²	Height (ft):	16	Base Elevation (ft):102	0			
e.	Exhaust Temperate	ure:1,000 °F	_ Exhaust % Moist	ure:≅	17 Exhaust V	elocity: (ft/sec)	≅50			
f.	Exhaust Volume:	33,085 A	ACFM	Exha	ust Volume:	SCF	Λ			
g.	Distance to Neares	t Property Line (fl	:):		≅230					
h.	Weather Cap?:	Yes	🛛 No							
i.	Used by Sources:	121B				7.1.100				
j .	Latitude:	40.60	94	Lo	ngitude:	-79.569				
	Horizontal Reference Datum:		Horizontal Collection Method:		Reference P	oint:				
а.	Unit ID: S121E		b. Compa	any Designati		lixed acid fume s	crubber			
C.	Discharge Type:	Vertical Unobstr	ucted Opening							
d.	Diameter (ft):	1.5	Height (ft):	60	Base Elevation (ft):102	0			
e.	Exhaust Temperate	ure:110 ºF	_ Exhaust % Moist	ure:2	20 Exhaust V	/elocity: (ft/sec)	≅2월8			
f.	Exhaust Volume:	≅2,400		Exha	ust Volume:	SCF	Л			
g.	Distance to Neares	st Property Line (f	i):		≅400					
h.	Weather Cap?:	🗌 Yes	🛛 No							
i.	Used by Sources:	C121E								
j.	Latitude:	40.60	95	Lo	ongitude:	-79.568				
	Horizontal Reference Datum:		Horizontal Collection Method:		Reference F	Point:				

Se	Section 9 - Stack/Flue Information (duplicate this section as needed)									
	r renewals, review a ction 3 of this applic		pre-printed inf	ormation and add	additio	nal sections for any r	new stack/flu	ue listed in		
9.1			n							
a.	Unit ID: Z115		b.	Company Design	nation:	Cooling Tower No. 2	2 – Fugitive			
C.	Discharge Type:	Fugitive Emiss	sions							
d.	Diameter (ft):		Height (ft):	· · · · · · · · · · · · · · · · · · ·	Ba	ase Elevation (ft):				
е.	Exhaust Temperat	ure:	Exhaust	% Moisture:		Exhaust Velocity	: (ft/sec) _			
f.	Exhaust Volume:		ACFM	Ex	haust V	olume:	SCFM			
g .	Distance to Neares	st Property Line	(ft):							
h.	Weather Cap?:	🗌 Yes	[] N	o						
i.	Used by Sources:	115								
j .	Latitude:				Longitu	ıde:				
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point:				
				••••						
a.	Unit ID: Z116		b.	Company Desigr	nation:	Misc. Space Heater	s			
c.	Discharge Type:	Fugitive Emiss	sions							
d.	Diameter (ft):		Height (ft)		Ba	ase Elevation (ft):				
e.	Exhaust Temperat	ure:	Exhaust	% Moisture:		Exhaust Velocity	/: (ft/sec)	≅8		
f.	Exhaust Volume:		ACFM	Ex	haust V	′olume:	SCFM			
g.	Distance to Neares	st Property Line	(ft):					52		
h.	Weather Cap?:	🗌 Yes		lo						
i.	Used by Sources:	116		141-3-55-						
j.	Latitude:				Longitu	ıde:				
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point:				

2700-PM-AQ0010 Rev. 8/2009

Se	Section 9 - Stack/Flue Information (duplicate this section as needed)									
	r renewals, review a ction 3 of this application		pre-printed inf	formation and add add	litional sections for any	new stack/flue listed in				
9.1	General Stack/V	ent Informatio	n							
a.	Unit ID: Z120E		b.	Company Designatio	n: No. 90 Line Strip D	ryer – Fugitive				
C.	Discharge Type:	Fugitive Emiss	sions							
d.	Diameter (ft):		Height (ft):		Base Elevation (ft):					
e.	Exhaust Temperate	ure:	Exhaust 9	% Moisture:	Exhaust Velocit	y: (ft/sec)				
f.	Exhaust Volume:		ACFM	Exhaus	st Volume:	SCFM				
g.	g. Distance to Nearest Property Line (ft):									
h.	Weather Cap?:	🗌 Yes		lo		· · ·				
i.	Used by Sources:	120E		108/10						
j.	Latitude:			Lon	gitude:					
	Horizontal Reference Datum:		Horizontal Collection Method:		Reference Point:					
a.	Unit ID: Z121A		b.	Company Designatio	n: No. 91 Line Strip D	ryers Nos. 1 and 2				
c.	Discharge Type:	Fugitive Emiss	sions							
d.	Diameter (ft):		Height (ft)		Base Elevation (ft):					
e.	Exhaust Temperate	ure: 	Exhaust	% Moisture:	Exhaust Veloci	y: (ft/sec)8				
f.	Exhaust Volume:		ACFM	Exhaus	st Volume:	SCFM				
g.	Distance to Neares	t Property Line	(ft):							
h.	Weather Cap?:	🗌 Yes		lo						
i.	Used by Sources:	121A								
j.	Latitude:			Lon	gitude:					
	Horizontal Reference Datum:		Horizontal Collection Method:		Reference Point:					

2700-PM-AQ0007 Rev. 7/2004

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary. No. 91 Line Kolene Heater (Source 121F)

Manufacturer Kolene		Model N TBD	lo.	Numt	per of Sources		
Source Designation		Maximu	m Capacity	Rateo	Capacity		
No. 91 Line Kolene Heater	r (121F)			8 MM	IBtu/hour		
			· · · · · ·	68.04	mmcf annual		
Type of Material Processe Specialty Products	d						
Maximum Operating Sch	edule						
Hours/Day	Days/Week		Days/Year		Hours/Year		
24	7		365		8,760		
Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)							
Capacity (specify units) Per Hour Per Day Per Week Per Year							
Per Hour		Per Week		Per Year			
Operating Schedule							
Hours/Day	Days/Week		Days/Year		Hours/Year		
Seasonal variations (Mont	hs) From		to				
If variations exist, desc							
Not Applicable							
2. Fuel - See Attached	Potential Emis	ssions Spread	sheet				
2. Fuel - See Attached		ssions Spread	sheet	% Ash			
0	d Potential Emis luantity Hourly	ssions Spread	sheet Sulfur	% Ash (Weight)	BTU Content		
0	luantity Hourly			% Ash (Weight)			
C Type	luantity				Btu/Gal. &		
C Type I Oil Number	luantity Hourly GPH @	Annually	Sulfur				
C Type	Auantity Hourly GPH @ 60°F GPH @	Annually X 10 ³ Gal	Sulfur % by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &		
C Type I Oil Number	Nuantity Hourly GPH @ 60°F	Annually X 10 ³ Gal X 10 ³	Sulfur		Btu/Gal. & Lbs./Gal. @ 60 °F		
Type C Oil Number I Oil Number I Oil Number I	Auantity Hourly GPH @ 60°F GPH @	Annually X 10 ³ Gal	Sulfur % by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &		
C Type I Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F	Annually X 10 ³ Gal X 10 ³ Gal	Sulfur % by wt % by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F		
Type I Oil Number	Auantity Hourly GPH @ 60°F GPH @	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶	Sulfur % by wt % by wt grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &		
Type I Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F	Annually X 10 ³ Gal X 10 ³ Gal	Sulfur % by wt % by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F		
Type I Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF		
Type I Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶	Sulfur % by wt % by wt grain/100 SCF grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F		
Type C Oil Number Image: Second seco	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF		
Current Current Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶	Sulfur % by wt % by wt grain/100 SCF grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF		
Type C Oil Number Image: Second seco	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF		
Current Current Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF		
Current Current Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF		
Current Current Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF		
Current Current Oil Number	Auantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF		

	26	ection B - Pro	2 ConSultation In Statistics Statistics (Statistics)		
1. Source Infor	rmation				
Source Description	i (give type, use, raw n	naterials, product	, etc). Attach additior	nal sheets as	necessary.
Bright Anneal – He	ater				
Manufacturer Ebner		Model N TBD	0.		ber of Sources
Source Designation	n		m Capacity	1 Rate	d Capacity
Bright Anneal Heat			in euplicity	17.7	MMBtu/hour 54 mmcf annual
Type of Material Pr Specialty Products		E ,	··· ()· .		
Maximum Operati					
Hours/Day 24	Days/Wee	łk	Days/Year 365		Hours/Year 8,760
	tions existing or reque	sted, if any (e.g.,		ary restriction	
Capacity (specify					
Per Hour	Per Day		Per Week		Per Year
Operating Schedu					
Hours/Day	Days/Wee	ek	Days/Year		Hours/Year
-					
Seasonal variations If variations exi Not Applicable	s (Months) From st, describe them		to		
If variations exi Not Applicable	ist, describe them	hreadsheet	to		
If variations exi Not Applicable	ist, describe them Potential Emissions S	opreadsheet	to	% Ash	
If variations exi Not Applicable 2. Fuel – See P Type	otential Emissions S Quantity Hourly	preadsheet Annually	to Sulfur	% Ash (Weight)	BTU Content
If variations exi Not Applicable 2. Fuel – See P	otential Emissions S Quantity	Annually X 10 ³			BTU Content Btu/Gal. & Lbs./Gal. @ 60 °F
If variations exi Not Applicable 2. Fuel – See P Type	otential Emissions S Quantity Hourly GPH @ 60°F GPH @	Annually X 10 ³ Gal	Sulfur % by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &
If variations exi Not Applicable 2. Fuel – See P Type Oil Number Oil Number	Potential Emissions S Quantity Hourly GPH @ 60°F	Annually X 10 ³	Sulfur		Btu/Gal. & Lbs./Gal. @ 60 °F
If variations exi Not Applicable 2. Fuel – See P Type Oil Number	otential Emissions S Quantity Hourly GPH @ 60°F GPH @	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶	Sulfur % by wt % by wt grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &
If variations exi Not Applicable 2. Fuel – See P Type Oil Number Oil Number	Potential Emissions S Quantity Hourly GPH @ 60°F GPH @ 60°F	Annually X 10 ³ Gal X 10 ³ Gal	Sulfur % by wt % by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F
If variations exi Not Applicable 2. Fuel – See P Type Oil Number Oil Number Natural Gas	Potential Emissions S Quantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F
If variations exi Not Applicable 2. Fuel – See P Type Oil Number Oil Number Oil Number Natural Gas Gas (other)	Potential Emissions S Quantity Hourly GPH @ 60°F GPH @ 60°F SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶	Sulfur % by wt % by wt grain/100 SCF grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF
If variations exi Not Applicable 2. Fuel – See P Type Oil Number Oil Number Oil Number Natural Gas Gas (other) Coal	Potential Emissions S Quantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. @ 60 °F Btu/SCF Btu/SCF
If variations exi Not Applicable 2. Fuel – See P Type Oil Number Oil Number Natural Gas	Potential Emissions S Quantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	Annually X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. @ 60 °F Btu/SCF Btu/SCF

1. Source Info	rmation				
Source Description Hood Anneal Furn	n (give type, use, raw n ace	naterials, product,	etc). Attach additiona	al sheets as	necessary.
Manufacturer TBD	····	Model No	0.	Numb	er of Sources
Source Designation Hood Anneal Furn		Maximun	n Capacity	Rated 3.6 M	l Capacity MBtu/hour mmcf annual
Type of Material P Specialty Products		I			
Maximum Operat	ing Schedule				
Hours/Day 24	Days/Wee 7	•k	Days/Year 365		Hours/Year 8,760
	tions existing or reque	sted, if any (e.g., t	pottlenecks or voluntar	y restriction	s to limit PTE)
Capacity (specify			DeviMent		
Per Hour	Per Day		Per Week		Per Year
Operating Sched					
Hours/Day	Days/Wee	ek	Days/Year		Hours/Year
•					
	ist, describe them		to	1	
Not Applicable	ist, describe them		to		
If variations ex Not Applicable 2. Fuel Not Ap	vist, describe them		····	% Ash	
If variations ex Not Applicable 2. Fuel Not Ap Type	plicable Quantity Hourly	Annually	to Sulfur	% Ash (Weight)	BTU Content
If variations ex Not Applicable 2. Fuel Not Ap	vist, describe them	X 10 ³	····		BTU Content Btu/Gal. Lbs./Gal. @ 60 °
If variations ex Not Applicable 2. Fuel Not Ap Type	plicable Quantity Hourly GPH @	X 10 ³ Gal X 10 ³	Sulfur		Btu/Gal.
If variations ex Not Applicable 2. Fuel Not Ap Type Oil Number	ist, describe them plicable Quantity Hourly GPH @ 60°F GPH @	X 10 ³ Gal X 10 ³ Gal X 10 ⁶	Sulfur % by wt % by wt grain/100		Btu/Gal. Lbs./Gal. @ 60 ° Btu/Gal.
If variations ex Not Applicable 2. Fuel Not Ap Type Oil Number Oil Number	plicable Quantity Hourly GPH @ 60°F GPH @ 60°F	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶	Sulfur % by wt % by wt grain/100 SCF grain/100		Btu/Gal. Lbs./Gal. @ 60 ° Btu/Gal. Lbs./Gal. @ 60 °
If variations ex Not Applicable 2. Fuel Not Ap Oil Number Oil Number Oil Number Matural Gas Gas (other)	ist, describe them Quantity Hourly GPH @ 60°F GPH @ 60°F SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF		Btu/Gal. Lbs./Gal. @ 60 ° Btu/Gal. Lbs./Gal. @ 60 ° Btu/SC
If variations ex Not Applicable 2. Fuel Not Ap Oil Number Oil Number Oil Number Natural Gas Gas (other) Coal	ist, describe them Quantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. Lbs./Gal. @ 60 ° Btu/Gal. Lbs./Gal. @ 60 ° Btu/SC Btu/SC
If variations ex Not Applicable 2. Fuel Not Ap Type Oil Number Oil Number Oil Number Matural Gas	ist, describe them Quantity Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	Sulfur % by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. Lbs./Gal. @ 60 ° Btu/Gal. Lbs./Gal. @ 60 ° Btu/SC

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary. Emergency Generator -Diesel

Manufacturer		Model N	0.	Num	Number of Sources			
Kohler		TBD		1				
Source Designation		Maximu	m Capacity		d Capacity			
Emergency Generate	or (Source 117)				0 kw (100 hours usage)			
				362 9	gallons of diesel fuel			
Type of Material Pro Specialty Products	cessed							
Maximum Operatin	g Schedule							
Hours/Day	Days/Wee	k	Days/Year		Hours/Year			
-			ny (e.g., bottlenecks or voluntary restrictions to limit PTE)					
		sted, if any (e.g.,	bottlenecks or volunt	ary restriction	ns to limit PTE)			
Capacity (specify u								
Per Hour	Per Day		Per Week		Per Year			
Operating Schedul	•							
Hours/Day	Days/Wee		Days/Year		Hours/Year			
- Hoursiday			Days/ 1 Cal					
Seasonal variations	(Months) From		to		· · · · · · · · · · · · · · · · · · ·			
If variations exist								
Not Applicable								
2 Fuel								
2. Fuel	Quantity			% Asb				
	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTIL Content			
Туре	Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content			
	Hourly GPH @	· ·			Btu/Gal. &			
Туре	Hourly	X 10 ³	Sulfur % by wt					
Type Oil Number	Hourly GPH @ 60°F	· ·			Btu/Gal. & Lbs./Gal. @ 60 °F			
Туре	Hourly GPH @	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &			
Type Oil Number	Hourly GPH @ 60°F GPH @	X 10 ³			Btu/Gal. & Lbs./Gal. @ 60 °F			
Type Oil Number	Hourly GPH @ 60°F GPH @	X 10 ³ Gal X 10 ³	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &			
Type Oil Number Oil Number Oil Number	Hourly GPH @ 60°F GPH @	X 10 ³ Gal X 10 ³ Gal X 10 ⁶	% by wt % by wt grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. &			
Type Oil Number Oil Number Natural Gas	Hourly GPH @ 60°F GPH @ 60°F	X 10 ³ Gal X 10 ³ Gal	% by wt % by wt		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F			
Type Oil Number Oil Number Oil Number	Hourly GPH @ 60°F GPH @ 60°F SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF	% by wt % by wt grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF			
Type Oil Number Oil Number Natural Gas	Hourly GPH @ 60°F GPH @ 60°F	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶	% by wt % by wt grain/100 SCF grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F			
Type Oil Number Oil Number Natural Gas Gas (other)	Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	% by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF			
Type Oil Number Oil Number Natural Gas	Hourly GPH @ 60°F GPH @ 60°F SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶	% by wt % by wt grain/100 SCF grain/100		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF			
Type Oil Number Oil Number Natural Gas Gas (other) Coal	Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	% by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF			
Type Oil Number Oil Number Natural Gas Gas (other)	Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	% by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF			
Type Oil Number Oil Number Natural Gas Gas (other) Coal	Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	% by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF			
Type Oil Number Oil Number Natural Gas Gas (other) Coal	Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	% by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF			
Type Oil Number Oil Number Natural Gas Gas (other) Coal	Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	% by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF			
Type Oil Number Oil Number Natural Gas Gas (other) Coal	Hourly GPH @ 60°F GPH @ 60°F SCFH SCFH	X 10 ³ Gal X 10 ³ Gal X 10 ⁶ SCF X 10 ⁶ SCF	% by wt % by wt grain/100 SCF grain/100 SCF		Btu/Gal. & Lbs./Gal. @ 60 °F Btu/Gal. & Lbs./Gal. @ 60 °F Btu/SCF Btu/SCF			

	Section B - Com	bustion Unit Inf	ormation	
Combustion Units:	Coal 🗌 Oil 🛛 Nat	ural Gas Othe	r:	
scription: ler No. 3 (S033)				
nufacturer aver Brooks	Model No. TBD		Number of units	3
ximum heat input (Btu/hr)	Rated heat input (Btu/ 7 MMBtu/hr	/hr) Typical hea	t input (Btu/hr)	Furnace Volume
te Area (if applicable)		Method of fi Natural Gas		L
icate how combustion air is	supplied to boiler			
cate the Steam Usage:				
rk and describe soot Clean	ing Method:	·· 4		
Air Blown Steam Blown Brushed and Vacuumed		iv. Other v. Frequency o	f Cleaning	
	Maximum (Operating sched	lule	<u></u>
urs/Day	Days/Week	Days/Year 365	Ho 8,7	urs/Year
erational restrictions taken		I		
pacity (specify units)				
hour	Per day	Per week	Pei	r year
	Typical O	perating schedu	lle	
urs/Day	Days/Week	Days/Year	Ho	urs/Year
asonal variations (Months):	If variations exist, descri	ibe them.		
erating using primary fuel: erating using secondary fu n-operating:	el:	From Form		to to
				·
Specify the primary, secon Commercial Natural Gas	ndary and startup fuel. Fu	rnish the details in it	tem 3.	

Se	Section 9 - Stack/Flue Information (duplicate this section as needed)									
	r renewals, review and ction 3 of this application		re-printed inf	ormation and	add additio	nal sections for any	y new stack/flu	e listed in		
9.1	General Stack/Ve	ent Information								
a.	Unit ID: S121D		b.	Company De	signation:	No. 91 Line Sulfur	ic acid Scrubb	er		
c.	Discharge Type:	Vertical								
d.	Diameter (ft):	≈2	_ Height (ft):	≈60	Ba	ase Elevation (ft):	1020			
e.	Exhaust Temperatu	ıre: ≈120 ºF	Exhaust %	6 Moisture:	≈20	Exhaust Veloci	ity: (ft/sec)	≈19		
f.	Exhaust Volume:	≈3,600	ACFM		Exhaust V	/olume:	SCFM			
g.	Distance to Neares	t Property Line (i	ft):	or stowed		≈400				
h.	Weather Cap?:	🗌 Yes	□ N	0						
i.	Used by Sources:	C121D								
j.	Latitude:	40.6	05		Longitu	ude:	-79.566			
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point	:			
a.	Unit ID: S122A		b.	Company De	signation:	Cleaning Line De	greasing Stack			
c.	Discharge Type:	Vertical								
d.	Diameter (ft):	≈1.5	_ Height (ft):	≈90	B	ase Elevation (ft):	1020			
е.	Exhaust Temperatu	ıre:≈120 ºF	Exhaust 9	% Moisture:	≈20	Exhaust Veloc	city: (ft/sec)	≅8		
f.	Exhaust Volume:	TBD	ACFM		Exhaust V	/olume:	SCFM			
g.	Distance to Neares	t Property Line (ft):			≅400				
h.	Weather Cap?:	🗌 Yes	□ N	0						
i.	Used by Sources:	C122A	15-					((
j.	Latitude:	40.6	05		Longitu	ude:	-79.568			
	Horizontal Reference Datum:		Horizontal Collection Method:			Reference Point	:			

2700	PM-AQ0007 Rev. 7/200	4						·· ·
Se	ction 9 - Stack/Flu	le Information	ו (duplicate this s	ection as	needed)			
	r renewals, review ar ction 3 of this applica		re-printed informat	ion and ac	dd additional	sections for any	new stack/flu	e listed in
9.1	General Stack/Ve	ent Information	I					
a.	Unit ID: S117		b. Com	pany Desi	gnation: Err	nergency Genera	ator Stack	
c.	Discharge Type:	Vertical			12			<u>.</u>
d.	Diameter (ft):	≈1	Height (ft):	≈90	Base	Elevation (ft):	1020	
e.	Exhaust Temperatu	re: <u>≈125</u> ºF	Exhaust % Moi	sture:	≈3	Exhaust Velocity	/: (ft/sec)	
f.	Exhaust Volume:		ACFM	E	Exhaust Volur	me:	SCFM	
g.	Distance to Nearest	Property Line ((ft):		≈4	00		
h.	Weather Cap?:	🗌 Yes	🛛 No					
i.	Used by Sources:	117						
j.	Latitude:	40.6	04		Longitude:		-79.569	
	Horizontal Reference Datum:		Horizontal Collection Method:		R	eference Point:		
a.	Unit ID:Z121F		b. Com	pany Desi	gnation: Ko	lene Heater Fug	itive	
c.	Discharge Type:	Fugitive				-		
d.	Diameter (ft):		_ Height (ft):		Base	Elevation (ft):		
e.	Exhaust Temperatu	re:	Exhaust % Moi	sture:		Exhaust Velocit	y: (ft/sec)	≅8
f.	Exhaust Volume:		ACFM	E	Exhaust Volur	me:	SCFM	
g.	Distance to Nearest	Property Line ((ft):					
h.	Weather Cap?:	🗌 Yes	🗌 No					
i.	Used by Sources:	121F			.4			
j.	Latitude:	40.6	05		Longitude:		-79.568	
	Horizontal Reference Datum:		Horizontal Collection Method:		R	eference Point:		

	PM-AQ0007 Rev. 7/200 ction 9 - Stack/Flu		n (duplicate this section	as needed)			
For	r renewals, review ar ction 3 of this applica	nd correct any pation.	pre-printed information an			any new stack/flu	listed ir
9.1	General Stack/Ve	ent Informatior	ו				
a.	Unit ID: Z124		b. Company D	esignation:	Hood Anneal I	Furnace - Fugitive	
с.	Discharge Type:	Fugitive Emiss	ions				
d.	Diameter (ft):		Height (ft):	В	ase Elevation (f	t):	
ə.	Exhaust Temperatu	ıre:	Exhaust % Moisture:		Exhaust Ve	elocity: (ft/sec)	
	Exhaust Volume:		ACFM	Exhaust V	/olume:	SCFM	
	Distance to Neares	t Property Line	(ft):				
۱.	Weather Cap?:	🗌 Yes	🗋 No				
	Used by Sources:	124	·				
•	Latitude:			Longitu	ude:		
	Horizontal Reference Datum:		Horizontal Collection Method:		Reference Po	pint:	
a.	Unit ID: Z125		b. Company [esignation:	Cooling Towe	r No. 3 - Fugitive	
C .	Discharge Type:	Fugitive Emiss	sions				
d.	Diameter (ft):		Height (ft):	В	ase Elevation (f	t):	
Ð.	Exhaust Temperatu	ıre:	Exhaust % Moisture:		Exhaust V	elocity: (ft/sec)	≅8
F.	Exhaust Volume:		ACFM	Exhaust	/olume:	SCFM	
g.	Distance to Neares	t Property Line	(ft):				
٦.	Weather Cap?:	🗌 Yes	🗌 No				
•	Used by Sources:	125					
	Latitude:			Longitu	ude:	200	
	Horizontal Reference Datum:		Horizontal Collection Method:		Reference P	oint:	





SECTION C. Site Level Requirements

visible emissions;

(3) The emission results from sources specified in 25 Pa. Code Section 123.1(a)(1)-(9).

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All air cleaning devices and air contamination sources at the facility shall be operated and maintained in accordance with manufacturer's specification and good air pollution and engineering practices.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

. A facility-wide inspection shall be conducted by the Owner/Operator, at a minimum of once each day, that the facility is in operation. The facility-wide inspection shall be conducted for the presence of the following:

a. Visible stack emissions;

- b. Fugitive emissions; and
- c. Potentially objectionable odors at the property line.

These observations are to ensure continued compliance with source-specific visible emission limitations, fugitive emissions prohibited under 25 Pa. Code §§123.1 or 123.2, and malodors prohibited under 25 Pa. Code §123.31. This observation does not require that it be performed by a person certified as a qualified observer for EPA Method 9 for Visual Determination of the Opacity of Emissions from Stationary Sources. Observations for visible stack emissions shall be conducted during daylight hours and all observations shall be conducted while sources are in operation. If visible stack emissions, fugitive emissions, or potentially objectionable odors are apparent, the Owner/Operator shall take corrective action.

#009 [25 Pa. Code §127.444]

Compliance requirements.

A person may not cause or permit the operation of a source subject to this article unless the source and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the application and conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to this chapter in a manner inconsistent with good operating practices.

010 [25 Pa. Code §129.14]

Open burning operations

(a) The permittee shall not permit the open burning of material in a manner that:

(1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.

(2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.

(3) The emissions interfere with the reasonable enjoyment of life or property.

- (4) The emissions cause damage to vegetation or property.
- (5) The emissions are or may be deleterious to human or animal health.

(b) Exceptions: The requirements of subsection (a) do not apply where the open burning operations result from:

(1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.

(2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.

ATI FLAT ROLLED PRODUCTS HOLDINGS LLC/VANDERGRIFT



SECTION D. Source Level Requirements

Source ID: 031

Source Capacity/Throughput:

Source Name: BOILER #1

26.100 MMBTU/HR

Conditions for this source occur in the following groups: 2. RACT II

2. RACT II >20 MM BTU/HR PARTICULATE SOURCES

CU 031] ➡	STAC S031	
-----------	-----	--------------	--

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

The permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this boiler in excess of the rate of 0.4 pounds per million Btu of heat input.

002 [25 Pa. Code §123.22]

Combustion units

The permittee shall not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from this boiler in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

Compliance with this requirement specified in this streamline permit condition assures compliance with the provisions specified in the S.I.P. approved SO2 limits found in 40 CFR 52.202(c)(1).

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with RACT Operating Permit No. 65-000-137, Condition No.7, NOx emissions from this boiler shall not exceed 14.3 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most current AP-42 emission factors in conjunction with fuel usage records.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify SO2 emission rates using the most current AP-42 emission factors in conjunction with fuel usage records.

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The company shall maintain 12 month rolling records of NOx emissions from this boiler and maintain on site for a minimum of five years and shall be made available to the Department upon request.



ATI FLAT ROLLED PRODUCTS HOLDINGS LLC/VANDERGRIFT



SECTION D. Source Level Requirements

Source ID: 032

011

F

Source Name: BOILER #2 Source Capacity/Throughput:

26.100 MMBTU/HR

Conditions for this source occur in the following groups: 2. RACT II

2. RACT II >20 MM BTU/HR PARTICULATE SOURCES

	032	\Rightarrow	STAC S032	
,		, ,		

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

OTAO

Combustion units

The permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this boiler in excess of the rate of 0.4 pounds per million Btu of heat input.

002 [25 Pa. Code §123.22]

Combustion units

The permittee shall not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from this boiler in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

Compliance with this requirement specified in this streamline permit condition assures compliance with the provisions specified in the S.I.P. approved SO2 limits found in 40 CFR 52.202(c)(1).

003 [25 Pa. Code §127.411]

Content of applications.

In accordance with RACT Operating Permit No. 65-000-137, Condition No.7, NOx emissions from this boiler shall not exceed 14.3 tons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most current AP-42 emission factors in conjunction with fuel usage records.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify SO2 emission rates using the most current AP-42 emission factors in conjunction with fuel usage records.

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.411]

Content of applications.

The company shall maintain 12 month rolling records of NOx emissions from this boiler and maintain on site for a minimum of five years and shall be made available to the Department upon request.



 SECTION D.
 Source Level Requirements

 Source ID: 116
 Source Name: MISCELLANEOUS SPACE HEATERS

 Source Capacity/Throughput:
 90,000 MCF/HR
 Natural Gas

Conditions for this source occur in the following groups: 1. RACT II



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.

002 [25 Pa. Code §127.441] Operating permit terms and conditions.

No person may permit the emission from the exhaust of each space heater into the outdoor atmosphere in a manner that the concentration of the sulfur oxides (SOX), expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

 # 003 [25 Pa. Code §127.511] Monitoring and related recordkeeping and reporting requirements. The Owner/Operator shall maintain records of all natural gas and fuel oil utilized in these space heaters.
 # 004 [25 Pa. Code §127.511] Monitoring and related recordkeeping and reporting requirements. The Owner/Operator shall maintain records containing at a minimum:

- i) a Certification of sulfur content from the fuel supplier or
- ii) a Certification from the fuel supplier verifying the natural gas used is pipeline grade gas or from a public utility.





SECTION D. Source Level Requirements

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

005 [25 Pa. Code §129.93] Presumptive RACT emission limitations

In accordance with 25 Pa. Code Ch. 129.93(c)(1), the permittee shall install, maintain and operate these space heaters with individual rated gross heat inputs less than twenty (20) million Btu/hour of operation, in accordance with the manufacturers specifications.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

ATI FLAT ROLLED PRODUCTS HOLDINGS LLC/VANDERGRIFT



Source ID: 120A	Source Name: 90 LINE ANNEALIN	IG FURNACES		
	Source Capacity/Throughput:	50.500 MCF/HR	Natural Gas	
		40.000 Tons/HR	STEEL	
Conditions for this sour	ce occur in the following groups: #90 A 3. RA	VP LINE CT II		
	>20 N	/MBTU/HR		

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13] Processes

Processes

In accordance with 25 Pa. Code Ch.123.13(c)(1), the permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

002 [25 Pa. Code §123.21]

General

The permittee shall not permit the emission into the outdoor atmosphere of sulfur oxides from the pickle line heat treating furnaces in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

II. TESTING REQUIREMENTS.

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall conduct a stack test for emissions of NOx for this source, no less often than once every 5 years.

III. MONITORING REQUIREMENTS.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most recent AP-42 emission factors, along with fuel usage records or other methods with prior approval from the Department.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify SO2 emission rates using the most recent periodic monitoring data and/or AP-42 emission factors in conjunction with fuel usage records.

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.511]

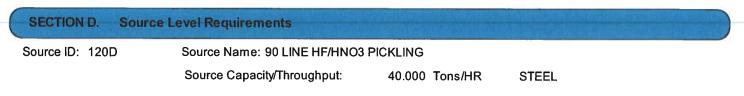
Monitoring and related recordkeeping and reporting requirements.

The permittee shall maintain records of natural gas usage on a monthly basis for this furnace.

V. REPORTING REQUIREMENTS.

ATI FLAT ROLLED PRODUCTS HOLDINGS LLC/VANDERGRIFT





Conditions for this source occur in the following groups: #90 A/P LINE

3. RACT II PARTICULATE SOURCES

PROC		STAC
120D	C120D	S120

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13] Processes

In accordance with 25 Pa. Code Ch.123.13(c)(1), the permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

002 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most recent AP-42 emission factor and/or stack testing data, along with steel throughput records or other methods with prior approval from the Department

003 [40 CFR Part 64 Compliance Assurance Monitoring for Major Stationary Sources §40 CFR 64.2]

Sections of PART 64

Applicability

For Compliance Assurance Monitoring (CAM), the permittee will monitor mixed acid pickling fume scrubber differential pressure and monitor for the presence of visible emissions from the exhaust to demonstrate a reasonable assurance that the fume scrubber controls NOx to levels in compliance with the emissions restrictions in this permit.

1. Indicator: Fume Scrubber Differential Pressure

(a) Measurement Approach: Differential pressure (DP) from the fume scrubber shall be monitored.

(b) Indicator Range: DP shall be maintained = 7 inches, w.c. Excursions will trigger an internal inspection and corrective actions.

(c) Performance Criteria:

(i) Data Representativeness: Daily DP monitoring; DP values =7 inches w.c. indicate that the fume scrubber is operating properly.

(ii) Verification of Operational Status: Upon observation of abnormal DP at the fume scrubber, an inspection shall be conducted, and repairs made if necessary.

(iii) QA/QC practices and Criteria: Actual DP values will be compared to desired values.

(iv) Monitoring Frequency: Daily when the No. 90 A&P Line is operating

(v) Data Collection Procedures: DP shall be recorded each day. DP records shall be maintained onsite for a minimum of 5years and shall be made available to the Department upon request.



(vi) Averaging Period: Not applicable.

2. Indicator: Visible Emissions Monitoring

(a) Measurement Approach: Stack exhaust will be observed on a routine basis to determine if visible emissions are present.

(b) Indicator Range: Exhaust condition will be determined to be "normal" (abnormal visible emissions are not present) or "abnormal" (abnormal visible emissions are present). An "abnormal" observation will trigger an internal inspection and corrective actions.

(c) Performance Criteria:

(i) Data Representativeness: Stack exhaust observations will be performed when the No. 90 A&P Line is operating during daylight hours. The stack exhaust condition will be recorded, and each value will be compared to the acceptable range. A "normal" observation indicates that the fume scrubber is operating properly.

(ii) Verification of Operational Status: Upon completion of an "abnormal" observation, an inspection shall be conducted, and repairs made if necessary.

(iii) QA/QC Practices and Criteria: The personnel conducting the stack exhaust observations shall be trained in observing normal stack conditions.

(iv) Monitoring Frequency. Weekly observations will be performed. Routine observations are currently performed at this frequency and have proven to be reasonable and adequately demonstrate that the mist eliminator is operating properly. This approach routinely verifies that abnormal visible emissions are not present and reasonably justifies that particulate matter emissions are not exceeding the limitation.

(v) Data Collection Procedures: Observation records are documented on a log sheet and shall be maintained for a minimum of 5-years. Records shall be made available to the Department upon request.
 (vi) Averaging Period: Not applicable.

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



Source ID: 120E	Source Name: 90 LINE STRIP DR	YER		
	Source Capacity/Throughput:	1.300 MCF/HR 40.000 Tons/HR	Natural Gas STEEL	
Conditions for this sour	ce occur in the following groups: 1. RA PART	CT II ICULATE SOURCES		

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

In accordance with 25 Pa. Code Ch.123.13(c)(1), the permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

002 [25 Pa. Code §123.21]

General

The permittee shall not permit the emission into the outdoor atmosphere of sulfur oxides from the pickle line strip dryer in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify SO2 emission rates using the most recent periodic monitoring data and/or AP-42 emission factors in conjunction with fuel usage records.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most recent AP-42 emission factors, along with fuel usage records or other methods with prior approval from the Department.

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall maintain records of natural gas usage on a monthly basis for this dryer.

V. REPORTING REQUIREMENTS.



Source ID: 121A	Source Name: 91 LINE STRIP DR	YERS (1 AND 2 COMBIN	IED)
	Source Capacity/Throughput:	2.600 MCF/HR	Natural Gas
		35.000 Tons/HR	STEEL
	ce occur in the following groups: #91 A 1. RA PART		
PROC STAC	7		

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

In accordance with 25 Pa. Code Ch.123.13(c)(1), the permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

002 [25 Pa. Code §123.21]

General

The permittee shall not permit the emission into the outdoor atmosphere of sulfur oxides from the pickle line strip dryer in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify SO2 emission rates using the most recent periodic monitoring data and/or AP-42 emission factors in conjunction with fuel usage records.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most recent AP-42 emission factors, along with fuel usage records or other methods with prior approval from the Department.

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall maintain records of natural gas usage on a monthly basis for this dryer.

V. REPORTING REQUIREMENTS.



Irce ID: 121B	Source Name: 91 LINE ANNE	ALING FURNACE	
	Source Capacity/Throughput:	42.000 MCF/HR	Natural Gas
		35.000 Tons/HR	STEEL
nditions for this sour	2.	91 A/P LINE RACT II 20 MM BTU/HR ARTICULATE SOURCES	

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

In accordance with 25 Pa. Code Ch.123.13(c)(1), the permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

002 [25 Pa. Code §123.21]

General

The permittee shall not permit the emission into the outdoor atmosphere of sulfur oxides from the pickle line heat treating furnaces in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most recent AP-42 emission factors, along with fuel usage records or other methods with prior approval from the Department.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify SO2 emission rates using the most recent periodic monitoring data and/or AP-42 emission factors in conjunction with fuel usage records.

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall maintain records of natural gas usage on a monthly basis for this furnace.

V. REPORTING REQUIREMENTS.



SECTION D. Source Level Requirements

Source ID: 121E

Source Name: 91 LINE HF/HNO3 PICKLING

Source Capacity/Throughput:

35.000 Tons/HR

Conditions for this source occur in the following groups: #91 A/P LINE 3. RACT II PARTICULATE SOURCES



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13] Processes

In accordance with 25 Pa. Code Ch.123.13(c)(1), the permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

002 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

At a minimum, the permittee shall verify particulate matter emission rates using the most recent AP-42 emission factor and/or stack testing data, along with steel throughput records or other methods with prior approval from the Department.

003 [40 CFR Part 64 Compliance Assurance Monitoring for Major Stationary Sources §40 CFR 64.2] Sections of PART 64

Applicability

Applicability

For Compliance Assurance Monitoring (CAM), the permittee will monitor the mixed acid pickling fume scrubber differential pressure and monitor for the presence of visible emissions from the exhaust to demonstrate a reasonable assurance that the fume scrubber controls NOx to levels in compliance with the emissions restrictions in this permit.

1. Indicator: Fume Scrubber Differential Pressure

(a) Measurement Approach:

Differential pressure (DP) from the fume scrubber shall be monitored.

(b) Indicator Range:

DP shall be maintained <= 7 inches, w.c. Excursions will trigger an internal inspection and corrective actions.

(c) Performance Criteria:

(i) Data Representativeness: Daily DP monitoring; DP values <=7 inches w.c. indicate that the fume scrubber is operating properly.

(ii) Verification of Operational Status: Upon observation of abnormal DP at the fume scrubber, an inspection shall be conducted and repairs made if necessary.





SECTION D. Source Level Requirements

(iii) QA/QC practices and Criteria: Actual DP values will be compared to desired values. (iv) Monitoring Frequency: Daily when the No. 91 A&P Line is operating (v) Data Collection Procedures: DP shall be recorded each day. DP records shall be maintained onsite for a minimum of 5years and shall be made available to the Department upon request. (vi) Averaging Period: Not applicable. 2. Indicator: Visible Emissions Monitoring (a) Measurement Approach: Stack exhaust will be observed on a routine basis to determine if visible emissions are present. (b) Indicator Range: Exhaust condition will be determined to be "normal" (abnormal visible emissions are not present) or "abnormal" (abnormal visible emission are present). An "abnormal" observation will trigger an internal inspection and corrective actions. (c) Performance Criteria: (i) Data Representativeness: Stack exhaust observations will be performed when the No. 91 A&P Line is operating during daylight hours. The stack exhaust condition will be recorded and each value will be compared to the acceptable range. A "normal" observation indicates that the fume scrubber is operating properly. (ii) Verification of Operational Status: Upon completion of an "abnormal" observation, an inspection shall be conducted and repairs made if necessary. (iii) QA/QC Practices and Criteria: The personnel conducting the stack exhaust observations shall be trained in observing normal stack conditions. (iv) Monitoring Frequency: Weekly observations will be performed. Routine observations are currently performed at this frequency and have proven to be reasonable and adequately demonstrate that the mist eliminator is operating properly. This approach routinely verifies that abnormal visible emissions are not present and reasonably justifies that particulate matter emissions are not exceeding the limitation. (v) Data Collection Procedures: Observation records are documented on a log sheet and shall be maintained for a minimum of 5-years. Records shall be made available to the Department upon request. (vi) Averaging Period: Not applicable. IV. RECORDKEEPING REQUIREMENTS. No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions). V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.





SECTION E. Source Group Restrictions.

Group Name: #90 A/P LINE

Group Description: Annealing Furnaces and Pickling Sources

Sources included in this group

ID	Name
120A	90 LINE ANNEALING FURNACES
120B	90 LINE SHOTBLAST
120C	90 LINE H2SO4 PICKLING
120D	90 LINE HF/HNO3 PICKLING

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with RACT Permit No. 65-000-137, Condition No.7, stack emission limits shall be established as follows:

a. Nitrogen oxide (NOx) emissions from the pickle line shall not exceed 103 tons/year.

b. Nitrogen oxide (NOx) emissions from the annealing furnace shall not exceed 26 tons/year.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-064, Condition No.11, stack emission limits shall be established as follows:

a. The outlet concentration of hydrofluoric acid (HF) shall not exceed 1 ppm

b. The outlet concentration of nitric acid (HNO3) shall not exceed 8 ppm..

c. Sulfuric Acid (H2SO4) emissions from shall not exceed 0.15 lb./hr.

d. Visible emissions from the #90 line and its associated air cleaning devices shall not exceed an opacity of 20 percent.

e. Odors from the #90 line and its associated air cleaning devices shall not be detectable beyond the property of the facility.

II. TESTING REQUIREMENTS.

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall conduct stack testing for emissions of NOx, HF and HNO3 from this pickle line no less often than once every 5 years.

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-064, Condition No. 4, the permittee shall maintain a daily log of the operating hours for the #90 line and shall be made available to the Department upon request.





SECTION E. Source Group Restrictions.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-064, Condition No. 7, the permittee shall maintain a log of any malfunctions to the air cleaning devices and it shall be made available to the Department upon request.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The company shall maintain records of NOx, HF, HNO3, H2SO4 and particulate emissions from this source group and maintain on site for a minimum of five years and shall be made available to the Department upon request.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The company shall maintain records of NOx emissions from this source group and maintain on site for a minimum of five years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-064, Condition No. 6, at least once per day, while the subject equipment is in operation, the permittee shall conduct an inspection of the #90 line and its associated air cleaning devices. At a minimum, the permittee shall monitor and record the following information:

- a. the color of the scrubber plume;
- b. the pH of each stage of the three-stage cross flow scrubber.
- c. the ORP of the three-stage cross flow scrubber.
- d. the pressure drop of the three-stage cross flow scrubber.
- e. the flow rate of each stage of the three-stage cross flow scrubber.
- f. the pressure drop of the packed bed scrubber.
- g. the flow rate of the packed bed scrubber.

009 [25 Pa. Code §127.441] Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-064, Condition No. 7, in the event of a malfunction to the air cleaning devices, the permittee shall promptly shut the source down. The permittee shall not restart the source until the air cleaning devices have been repaired and are functioning properly.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).





SECTION E. Source Group Restrictions.

Group Name: #91 A/P LINE

Group Description: Annealing furnace and pickling sources

Sources included in this group

ID	Name
121A	A 91 LINE STRIP DRYERS (1 AND 2 COMBINED)
121B	3 91 LINE ANNEALING FURNACE
121C	C 91 LINE ESS DESCALING
121E	E 91 LINE HF/HNO3 PICKLING

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4i, H2SO4 emissions from the H2SO4/Na2SO4 pickling system shall not exceed 0.2 lb./hr., and Na2SO4 emissions from the H2SO4/Na2SO4 pickling system shall not exceed 0.2 lb./hr.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4c,

process-related odors from the #91 line and its associated air cleaning devices shall not be detectable beyond the property of the owner/operator.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4g, HNO3 emissions at the outlet of the Tri-Mer four stage scrubber shall not exceed 0.3 lb./hr.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4b, NOx emissions from the annealing furnace shall not exceed 6.0 lb./hr. and 24.9 tons in any consecutive 12 month period.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4h, HF emissions at the outlet of the Tri-Mer four stage scrubber shall not exceed 0.1 lb./hr.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4e, NOx emissions at the outlet of the Tri-Mer four stage scrubber shall not exceed 19.7 lb./hr. and 57.4 tons in any consecutive 12 month period.

II. TESTING REQUIREMENTS.

007 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall conduct stack testing for emissions of NOx, HF, and HNO3 from the #91Line Tri-Mer four stage scrubber exhaust no less often than once every 5 years.

III. MONITORING REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.5d, the permittee shall maintain and operate monitoring devices on the single-stage packed bed scrubber that measure the following:





SECTION E. Source Group Restrictions.

(1) F	ressure drop of gas stream across scrubber bed (w.g.).
(2) L	iquid flow rate (gpm).
(3)]	iquid line or nozzle pressure (psi).
# 009	[25 Pa. Code §127.441]
Operat	ing permit terms and conditions.
	cordance with Operating Permit No. 65-307-076, Condition No.5c, the permittee shall maintain and operate ing devices on the Tri-Mer four-stage scrubber that measure the following:
(1) p	H and ORP.
(2) F	ressure drop of gas stream across scrubber bed (w.g.).
(3) L	iquid flow rate (gpm).
(4) L	iquid line or nozzle pressure (psi).
# 010	[25 Pa. Code §127.511]
Monito	ring and related recordkeeping and reporting requirements.
	nimum of once per year, the permittee shall measure NOx emission from the acid pickling process (Tri-Mer four crubber exhaust), using portable analyzers or other Department approved measuring techniques.

IV. RECORDKEEPING REQUIREMENTS.

#011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4a, the permittee shall maintain a log of any malfunctions to the air cleaning devices and provide it to the Department upon request.

#012 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The company shall maintain 12 month rolling records of NOx emissions from No. 91 Line Annealing Furnace (Source ID 121B) and HNO3/HF pickling (Source ID 121E) and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

#013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.7b, the permittee shall perform and maintain a log of the following maintenance on the fume scrubbers:

WEEKLY

- * Verify that ORP and pH probes are clean or remove and clean ORP and pH probes
- * Check Flow Sensors for proper flow range
- * Check/Inspect centrifugal circulation pumps
- * Check/Inspect chemical feed air diaphragm pumps
- * Check/Inventory chemicals in chemical storage tanks

MONTHLY

* Check and clean centrifugal circulation pump strainers





SECTION E. Source Group Restrictions.

* Check/Inspect centrifugal blowers

QUARTERLY

- * Flush recirculation headers; Inspect nozzles
- * Check/Inspect chemical storage tanks for leaks

SEMI-ANNUALLY

* Check/Inspect packed bed column scrubbers, including packing

014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.7a, the opacity of the exhaust emissions and other parameters associated with the operation of the #91 line shall show that the source is being operated in conformance with good air pollution control practices.

015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4f, the Tri-Mer 4 stage scrubber shall achieve a minimum control efficiency of 72% for NOx (expressed as NO2). Compliance with the outlet NOx emission limitation, as determined during the once every 5-years stack test, shall serve as demonstration of compliance with this condition.

016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.7c, the permittee shall perform an annual adjustment or tune-up on the annealing furnace. This adjustment shall include, at a minimum, the following:

(i) Inspection, adjustment, cleaning or replacement of fuel-burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.

(ii) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NOx, and to the extent practicable minimize emissions of CO.

(iii) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and opertion as specified by the manufacturer.

#017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In accordance with Operating Permit No. 65-307-076, Condition No.4a, in the event of a malfunction to the air cleaning devices, the permittee shall promptly shut the source down and discontinue operation until the source and the air cleaning devices have been repaired and are functioning properly. For purposes of this condition, a malfunction is any sudden, infrequent, and not reasonably preventable failure of air control equipment.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).



SECTION E. Source Group Restrictions.

Group Name: 1. RACT II

65-00137

Group Description: Sourses Rated <20 MMBtu/hr.

Sources included in this group

ID	Name	
116	MISCELLANEOUS SPACE HEATERS	
120E	90 LINE STRIP DRYER	
121A	91 LINE STRIP DRYERS (1 AND 2 COMBINED)	

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §129.97]

Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.

(c) The owner and operator of a source specified in this subsection, which is located at a major NOx emitting facility or major VOC emitting facility subject to § 129.96 shall install, maintain and operate the source in accordance with the manufacturer's specifications and with good operating practices:

(1) N/A

(2) N/A

(3) A boiler or other combustion source with an individual rated gross heat input less than 20 million Btu/hour.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §129.100]

Compliance demonstration and recordkeeping requirements.

(d) The owner and operator of an air contamination source subject to this section and §§ 129.96—129.99 shall keep records to demonstrate compliance with §§ 129.96—129.99 in the following manner:

(1) The records must include sufficient data and calculations to demonstrate that the requirements of § § 129.96—129.99 are met.

(2) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).





SECTION E. Source Group Restrictions.

Group Name: 3. RACT II

Group Description: Sources Subject to Case by Case RACT

Sources included in this group

ID	Name
120A	90 LINE ANNEALING FURNACES
120D	90 LINE HF/HNO3 PICKLING
121E	91 LINE HF/HNO3 PICKLING

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §129.99]

Alternative RACT proposal and petition for alternative compliance schedule.

Alternative RACT proposal and petition for alternative compliance schedule.

All air cleaning devices and air contamination sources at the facility shall be operated and maintained in accordance with manufacturer's specification and good air pollution and engineering practices.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §129.100]

Compliance demonstration and recordkeeping requirements.

(d) The owner and operator of an air contamination source subject to this section and §§ 129.96—129.99 shall keep records to demonstrate compliance with §§ 129.96—129.99 in the following manner:

(1) The records must include sufficient data and calculations to demonstrate that the requirements of § § 129.96—129.99 are met.

(2) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).





SECTION E. Source Group Restrictions.

Group Name: >20 MM BTU/HR

Group Description: RACT Combustion Sources

Sources included in this group

ID	Name
031	BOILER #1
032	BOILER #2
120A	90 LINE ANNEALING FURNACES
121B	91 LINE ANNEALING FURNACE

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

001 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall utilize a portable analyzer to measure emission rates of NOx and CO for these combustion sources. At a minimum, periodic monitoring shall occur once in each 12 month consecutive period for each source in this group.

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §129.93]

Presumptive RACT emission limitations

In accordance with RACT Operating Permit No. 65-000-137, Condition No.4, the Permittee shall maintain records for each adjustment conducted during the performance of the annual adjustment or tune-up on each boiler. These records shall contain, at a minimum, the following information;

- (i) The date of the tuning procedure
- (ii) The name of the service company and the technicians
- (iii) The final operating rate or load
- (iv) The final CO and NOx emission rates
- (v) The final excess oxygen rate.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

003 [25 Pa. Code §129.93]

Presumptive RACT emission limitations

The permittee shall make the annual adjustment in accordance with the EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-Fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved in writing by the Department.

004 [25 Pa. Code §129.93]

Presumptive RACT emission limitations

The permittee shall perform an annual adjustment or tune-up as required by RACT Operating Permit No. 65-000-137, for these sources. This adjustment shall include, at a minimum, the following:

(i) Inspection, adjustment, cleaning or replacement of fuel-burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.

(ii) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NOx, and





SECTION E. Source Group Restrictions.

to the extent practicable minimize emissions of CO.

(iii) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and opertion as specified by the manufacturer.

VII. ADDITIONAL REQUIREMENTS.

65-00137

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).





SECTION H. Miscellaneous.

INSIGNIFICANT ACTIVITIES

The following sources qualify as insignificant activities and have no applicable requirements, emission limits, monitoring and/or recordkeeping:

Acid tanks, oil tanks, NaOH tanks, NAHS tanks, Diesel fuel tanks & gasoline tanks Wastewater Treatment Plant Process Tanks and Non-VOC/HAP Tanks Thomas & Betts Space Heater Lime silo & TSP Silo Parts cleaners