AQ | Fac | Case # 25-000-00066

2700-FM-AQ0023 Rev. 1/2008
pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSPECTION REPORT

Commonwealth of Pennsylvania
Department of Environmental Protection
Air Quality Program

Date(s) of Inspection:	TV ☐ PA ☐ SM ☒ GP ☐ NM ☐ MEGA ☐	Permit #(s):	Expiration Date:	Case #:	PF ID #:
3/13/14		25-00060	28 Feb 2014	25-000-00066	510626

Company Name:	Municipality:	County:
Accuride Corp Erie	City of Erie	Erie

Plant Name:	Physical Location:	Federal ID — Plant Code #:
Acuride Erie / Erie Forge Plt	E. 12th St.	76-0534862-1

Responsible Official:	Mailing Address:
Steven Kuhn	
Title: Dir. of Operations	1015 E 12th St
Phone #(s): 814.480.6400	Erie

Mark (X) All Inspection Types That Apply To This Inspection:

☒	Full Compliance Evaluation (FCE)	☐	Plan Approval Inspection	☒	File Review (FR) 3/13/14
☐	Operating Permit Inspection (PI)	☐	Initial Permit Inspection (IPI)	☐	Complaint Inspection (CI)
☐	Routine/Partial (RTPT)	☐	Follow-Up Inspection (Ref. Date:_____)	☐	Sample Collection (SC)
☐	Minor Source(s) Inspection (RFD)	☐	Stack Test Observation	☐	Multi-Media Inspection (MM)
☐	Other:	☐	Announced		

Annual Compliance Certification Received: ☐ YES ☐ NO ☒ N/A — Date Received:

AIMS Report Received: ☒ YES ☐ NO ☐ N/A — Date Received: 3/11/14

Mark (X) All Activities That Apply:

☐	File Review	☒	Pre-Inspection Briefing	☒	Exit Interview/Briefing
☐	Pre-Inspection Observations	☒	Check For New/Unreported Sources	☐	Sample(s) Collected
☐	Visible Emissions Observations	☐	Verify Operation of CEMS	☐	Other

Comments/Recommendations: Enforcement since last FCE ☐ Yes ☒ No (If yes, attach summary)

Met with Matt Brady for facility tour. Facility cuts aluminum billets to size and presses them to shape.
Facility has no plans currently for construction/demolition projects asbestos removal or any new sources.
Facility operates 5 days/wk 3 shifts/day and employs ~212 persons.
No quality, fugitive emission or malodor problems were noted today.
No other problems or issues were noted today.
Inspection is pending records review.

Compliance Status: ☐ In ~~☐ Out~~ ~~☒ Pending~~ ☐ Awaiting Co. Report — **Needs a Follow-Up Inspection?** ☐ Yes ☒ No

Company Representative:	Title:	Signature:	Date:
Matt Brady 3/28/14	EH+S Coordinator		3/13/14
DEP Representative:	**Title:**	**Signature:**	**Date/Time:**
Melissa Baggam	AQ Specialist		3/13/14

This document is official notification that a representative of the Department of Environmental Protection, Air Quality Program, inspected the identified site. The findings of this inspection are shown above and on any attached pages, and may include violations uncovered during the inspection. Violations may also be discovered upon review of sample results or from any additional review of Department records. Notification will be forthcoming, if such violations are noted.

Page 1 of 1 — eFacts Inspection ID#: 2254028 Date: 3/18/14 — Reviewed By: Dawn L Martin

See attached checklist

☐ White – Regional Office ☐ Yellow – Site ☐ Pink – District Office

Accuride Erie L.P.: This synthetic minor facility performs non-ferrous forging. This division forges wheels, mostly for large trucks.
**Permit is due to expire 2/28/2014- Renewal has been submitted and reviewed and is waiting to be finalized. See the attached list for proposed changes to the operating permit. Accuride received a NOV for failure to keep records from Section D Source 102. Corrections were made within 14 days.

Permit contact: Matt Brady 814.480.6418 or 814.790.3675 mbrady@accuridecorp.com

Section B. General Site Requirements:
✓ #002, 003 Operating permit due to expire; renewal application due 6 – 18 mos. prior 02/28/2014
✓ #006, 009 Inspection and entry including access to records, and ability to sample and monitor
✓ #015 May not reactivate a source that has been out of operation > 1 yr w/o dept. approval.
✓ #019, 020 Shall comply with sampling, monitoring, testing and record keeping requirements and make available to the Department for 5 years.
See above renewal submitted
#015 Working w/ consultant (ECS+R) on deactivation notice for Source 102 only operated 1 day last year.

Section C. Site Level Requirements:
✓ #001, 014 Reasonable actions shall be taken to prevent particulate matter to become airborne from demolition & construction activities, the grading & maintenance of roads, land clearing, stockpiles, etc.
✓ #001 No fugitive emissions present in the outdoor atmosphere w/exception of those listed above.
✓ #002 No fugitives from sources in condition #1 should be visible outside the property.
✓ #003 No malodors detected outside the property
✓ #004 No emissions w/opacity equal to or greater than 20% for a period of more than 3 min in one hr or equal to or greater than 60% at any time are not permitted into the outdoor atmosphere.
✓ #006 Facility-wide emissions of CO is limited to a maximum of 95 tons @ 23.96 Tons through Feb
✓ #008, 009 Facility shall monitor and record the amount of natural gas combusted on a monthly basis. 2014
✓ #009 Facilities shall keep an on-site facility log for monthly totals of CO and NOx emissions from all processes; monthly total shall be added to the previous 11-mo totals to assure compliance.
✓ #012, 013 AIMS report including information on all previously reported sources, new sources, & modified sources to be submitted by Mar. 1 of each year; submitted in format specified by Dept.
✓ #015 No open burning.
#012,013 Rec'd 3/1/14 also had a 30 day extension.
#008,009 Checked records from Oct 2012 - Feb 2014
#009 Currently @ 10.81 TPY for NOx emissions

Section D. Source Level Requirements

Source 106B 1995 Quench Tank (26-5) (natural gas) FML -1→ CU 106B →STAC S106B
✓ #001 No SO_2 > 4 lbs. /mmbtu of heat input in 1 hr. (This condition cannot be verified by inspector)
✓ # 002 Operate and maintain as per mfg.'s specifications.

Source 102 8000 Ton Forging Press "Forge line 1" (Aluminum) PROC 102→ CNTL C102→STAC S102
(Venturi scrubber)

✓ #001 No PM > .02 grain/dscf(This condition cannot be verified by inspector)
NA #002 Dept. reserves the right to require source testing to show compliance for use of water based lubricants.
✓ #003, 004 005, 007 A differential manometer or equivalent device shall be permanently installed at a convenient location to indicate pressure drop across each of 3 Venturi scrubbers; an inspection log with the daily pressure drop recorded shall be kept; a minimum 12" w.g. pressure drop.
* #003, 004, 006, 007 A rotometer or equivalent shall be permanently installed at a convenient location to indicate the water flow rate to each of the 3 scrubbers; an inspection log with the daily flow rate recorded shall be kept; 220 gal/min to the scrubber shall be maintained.
* #004 Facility shall maintain a log of all preventive maintenance inspections on control devices; shall contain the dates, potential problems & defects, corrective measures taken as well as the pressure drop and water flow rate.
✓ #008, 009 These sources shall not be operated without the air pollution control devices and as per mfg.'s specs and consistent w/good air pollution control practices.

* This forge only operated once in the last year. Facility is planning on doing maintenance and submitting a deactivation notice

Source 103 7000 Ton Forging Press "Forge line 4" (Aluminum) PROC 103→ CNTL C103→STAC S103
(Venturi scrubber)

✓ #001 No PM > 0.01 grain/dscf. (This condition cannot be verified by inspector)
✓ #002, 003, 004, 008 A differential manometer or equivalent device shall be permanently installed at a convenient location to indicate pressure drop across each of 3 Venturi scrubbers; an inspection log with the daily pressure drop recorded shall be kept; minimum pressure drop is 12 inches w.g.
✓ #002, 003, 005, A rotometer or equivalent shall be permanently installed at a convenient location to indicate the water flow rate to each of the 3 scrubbers; an inspection log with the daily flow rate recorded shall be kept; a minimum water flow of 140 gallons/min. shall be maintained.
✓ #003 Facility shall maintain a log of all preventive maintenance inspections on control devices; shall contain the dates, potential problems & defects, corrective measures taken as well as the pressure drop and water flow rate.
✓ #006, 007 The sources shall not be operated without the air pollution control devices and as per mfg.'s specs and consistent w/good air pollution control practices.

Not operating today Does not operate often (See attached readings)
Used as a back-up for another press.
#002, 003, 004 #008 See attached documents

Source 104 2000 Heat Treating Furnaces FML -1→ PROC 104 →STAC S104
(9-1, 9-2, & 10-1) (Alum wheels) Heat treat 3

✓ #001 Emission Restrictions: Feb readings
CO (5.60 tpy) .91 SOx: (0.04 tpy) 0.006 TOC (0.569 tpy) 0.059
PM10 (1.23 tpy) 0.082 NOx (7.75 tpy) ~ 1.08 rolling

✓ #002, 003 Source shall only be fired with natural gas; maintain records of natural gas use; records to be kept for 5 yrs. (3 meters for monitoring
Operating unloading furnace while inspecting
#002 & 003 Gas usage averages ~ 20 MMSCF/month

Source 106A 1995 Solution Furnace ~~(26-4)~~ Solution furnace (Natural gas) FML -1→ PROC 106A →STAC S106A

✓ #001 No PM in effluent gas > 0.04 grain/dscf when effluent gas volume is < 150,000 dscf (This condition cannot be verified by inspector but is assumed to be met with use of natural gas as a fuel)
✓ #002 No SO_2 in effluent gas > 500 ppm by volume, dry (This condition cannot be verified but is assumed to be met with the use of natural gas as a fuel)
✓ # 003 Operate and maintain as per mfg.'s specifications.
Operating have Specific temperature range they operate at don't go below 960°F for Soln furnace generally runs @ 1000°F

Source106C 1995 Age Furnace ~~(26-6)~~ Age Furnace FML -1→ PROC 106C →STAC → S106C

✓ #001 No PM in effluent gas > 0.04 grain/dscf when effluent gas volume is < 150,000 dscf (This condition cannot be verified by inspector but is assumed to be met with use of natural gas as a fuel)
✓ #002 No SO_2 in effluent gas > 500 ppm by volume, dry (This condition cannot be verified but is assumed to be met with the use of natural gas as a fuel)
✓ # 003 Operate and maintain as per mfg.'s specifications.
Operating

Source 107 (2) Cold Cleaning Machines ~~(4-14, 22-7)~~ one in bldg 12 one in maint area PROC 107→STAC Z107
✓ #001 Cold Cleaning Machines (2 or more gals solvent w/greater than 5% VOCs):
a. Immersion machines shall have a freeboard ratio of 0.50 or greater.
b. Have a permanent, conspicuous label summarizing operating requirements.
c. Fans should not be blowing across the work area.
d. The machine should be covered at all times when not in use OR for remote reservoir cold cleaning machines, a perforated drain with a max. 6" dia.
e. Waste solvent shall be collected & stored in closed containers.
f. Absorbent materials may not be cleaned in the cold cleaning machine
g. Do not use any solvent with a vapor pressure of 1.0 mm Hg or greater and containing greater than 5% VOC by weight.

h. For any solvent containing VOC's, the following information must be provided: Name and address of supplier, type of solvent including product or vendor ID#, & the vapor pressure of the solvent measured in mmHg at 20 C.
i. MSDS or other appropriate documentation provided

Lid closed no fans or other issues noted

Source 108 Process Heating- Natural Gas Usage FML -1→ PROC 108 →STAC S108
↘STAC Z108

Includes 12 different pieces of equipment used for the production process:

Annealing furnace, 4-1	5000/8000 Venturi Duct Wash heater,12-1
Stress relief furnace, 4-2	Pre-heat furnaces, 22-1 22-2, 22-5
Lg. Die Heater, 22-20	Press Die Ring Burner, 22-10
Sm. Die Heater, 22-21	Press Die Torches, 22-11& 22-19
Press Die Ring Burner, 22-18	

Note: The following natural gas-fired units have stack emissions subject to restrictions: 22-1 & 22-2 subject to PM & SOx emission restrictions; 12-1 is subject to SOx emission restrictions.

✓ #001 No PM > 0.04 grain/dscf when effluent gas volume is < 150,000 dscf (This condition cannot be verified by inspector.

✓ #002 No SO_2 in effluent gas > 500 ppm by volume dry (This condition cannot be verified by inspector)

✓ # 004 Operate and maintain as per mfg.'s specifications.

No issues noted

Source109 Miscellaneous Natural Gas Usage FML -1→ PROC 109 →STAC S109
→STAC Z109

Includes natural gas-fired equipment not used for the production process (space heating units, infrared heaters, air-makeup heaters, emergency generators, & hot water heaters); all less than 10 MMBtu/hr.

✓ #001 No PM in effluent gas > 0.04 grain/dscf when effluent gas volume is < 150,000 dscf (This condition cannot be verified by inspector but is assumed to be met with use of natural gas as a fuel)

✓ #002, 003 No SO_2 in effluent gas > 500 ppm by volume, dry OR SO2 from a combustion unit > 4 lbs/mmbtu of heat input over a 1 hr. period (This condition cannot be verified but is assumed to be met with the use of natural gas as a fuel)

✓ # 004 Operate and maintain as per mfg.'s specifications.

Source 110 (3) Wheel Washers (5-1, 5-2 & 5-3) (Natural Gas) FML -1→ PROC 110 →STAC S110

↳ Now 6

✓ #001 No PM > 0.04 grain/dscf when effluent gas volume is < 150,000 dscf (This condition cannot be verified by inspector.

✓ #002 No SO_2 in effluent gas > 500 ppm by volume dry (This condition cannot be verified by inspector)

✓ # 003 Operate and maintain as per mfg.'s specifications

RFD (01/19/2009): 7 add'l machine lines w/washers. (The machine line portions are controlled by mist collectors & HEPA filters w/air re-circulated in the bldg.)

Operating No problems noted during inspection

Source 111 (2) Carbottom Furnaces PROC 111 →STAC S111

(Burns off lube residue from dies.) (22-22 & 22-23: Bldg 22) (Aluminum Dies)

✓ #001 No PM > 0.04 grain/dscf when effluent gas volume is < 150,000 dscf (This condition cannot be verified by inspector.

✓ # 002 Operate and maintain as per mfg.'s specifications.

Operating No problems or issues noted. Have circle charts on furnaces to record temp.

Source 112 A, 112 B, 112C: (2006 Heat Treat Line) FML -1→ PROC 112→STAC S112A

(Natural gas) ↘ STAC S112B

Source 112A: 2006 solution furnace

Heats up (no solution) to "move" alloys around for even distribution.

Source 112B: 2006 quench tank FML -1→ PROC 112B →STAC S112C

Source 112 C: 2006 age furnace FML -1→ PROC 112C →STAC S112D

Prematurely ages wheel; hardens once cooled →STAC S112E

✓ #001. 004, 009 Emission Restrictions: The following shall not be exceeded from the 2006 Heat Treat Line; records shall be kept and calculated on a monthly basis; 12-mo rolling total also to be calculated. Records for Feb 2014

NOx (6.0 tpy) 1.13 CO ((9.07 tpy) 0.95 VOC (0.40 tpy) 0.002

PM10 (0.57 tpy) 0.085 SOx (0.04 tpy) 0.006

NOx and CO emissions shall be calculated based on the vendors emission factors x fuel usage x hrs. of operation

PM-10, SOx, and VOC emissions shall be calculated based on the most recent AP-42 factor x fuel usage x hrs. of operation

✓ #002, 004, 005, 007 Shall only use natural gas for fuel for all the burners; shall install gas meters to measure natural gas amounts; monthly records on usage shall be kept & totaled based on 12-mo rolling total .

✓ #004, 005 Shall monitor the temperature of each source on a continuous basis during all hours; records of the temperature shall be kept

* #004, 006 Shall conduct a monthly inspection of each of the burners and tune the burners on an annual basis; records shall be kept of the maintenance conducted on each source and of the annual tune-ups and adjustments of the burners.

✓ #008 Shall maintain and operate as per mfg.'s specs.

Solution 1000° F Age 360°F Quench 175-185° F, Have an operator monitor temps @ all times during operation. Do annual Shutdown Aug or Sept for inspection. * Condition is being changed on renewal. Operating #002, 004, 005, 007 See attached records

Source 113 7000 Ton Forge Line 5 FML -1→ PROC 113 → CNTL C113 →STAC S113

Line 5 wet scrubber

✓ #001 PM not to exceed .02 grain/dscf (This condition cannot be verified by inspector)

✓ #002, 003, 004 Shall monitor and record the pressure drop daily; to be maintained between 30 – 45 inches w.g.

✓ #002, 003, 004 Shall monitor and record the flow rate daily; shall be maintained between 200 - 310 gallons/min.

✓ #003, 004 Shall maintain a copy of the mfg.'s spec's; source and control device to be operated and maintained as per mfg.'s specs.

✓ #003 Records shall be kept on the source and control device on any maintenance performed; the date, time, and duration of any malfunction.

✓ #004 The scrubber shall be operated whenever the forging press is operated.

✓ #005 The die preheat furnace shall only combust pipeline quality natural gas.

Operating Pump flow 223 gpm #002, 003, 004 See attached paperwork

Source 114 7000 Ton Forge Line 6 FML -1→ PROC 114→ CNTL C114 →STAC S114

Line 6 wet scrubber

✓ #001 PM is limited and shall not exceed .02 gr/dscf

✓ #002, 003, 004 Shall monitor and record the pressure drop daily; to be maintained between 30-45 inches w.g.

✓ #002, 003, 004 Shall monitor and record the flow rate daily; shall be maintained between 200 – 310 gallons/min.

✓ #003, 004 Shall maintain a copy of the mfg.'s spec's; source and control device to be operated and maintained as per mfg.'s specs.

✓ #003 Records shall be kept on the source and control device on any maintenance performed; the date, time, and duration of any malfunction.

✓ #004 The scrubber shall be operated whenever the forging press is operated.

✓ #005 The die preheat furnace shall only combust pipeline quality natural gas.
Flow Rate @ 227 gpm operating No problems or issues noted
#002, 003 + 004 See attached paperwork

Activities/sources with no emission limitations or add'l requirements

Die shop weld booth	aluminum billet saw	band saw
(5) wheel spinners	Bldg. 22 fugitive emissions (22-12)	(3) trim presses
wheel cooler	inter-source chip processor	Hoffman sandblasting unit
Quality Dept lathe	ventilation fans	plant maintenance
battery chargers	waste oil/coolant tank (wastewater)	steam cleaning units.

(3) wheel machining lines (consists of a CNC machine, a Prestress machine, & a handhole machine) miscellaneous machining equipment (consists of planers, lathes, metal saws, grinders, & drill presses),

RFD (01/19/2009): chip grinder controlled by a cyclone & air filtration unit prior to air recirculation within bldg.
RFD (04/16/2009): 2nd phase of transfer from Ohio: transfer of 5 wheel sanding polishing lines (each w/5-6 heads) controlled by a single Venturi scrubber.
RFD submitted 11-02-2010 for replacement of wash tank w/ 2 assoc. 0.5 mmBtu/hr nat. gas fired burners (exempt from PA)
RFD submitted 2-22-12 for a mist collector and nat. gas fired process heater (0.3 mmbtu)
RFD submitted 3/20/12 to add 3 wheel machining lines (2,8,9) and 6 mist collectors
**All of the above RFD's will be added to the permit renewal if applicable.

Section C Conditions 008-009
Provided by facility 3/23/14

Source ID		Accuride 2013 Gas Usage (CF)										
		Feb-14	Jan-14	Dec-13	Nov-13	Oct-13	Sep-13	Aug-13	Jul-13	Jun-13	May-13	Apr-13
	FG5 Die Fu	11165	7943	10999	12525	7349	7930	12810	8526	6997	11315	8342
	FG6 Die Fu	5581	3891	5334	6655	4077	5314	9347	5361	4503	6068	5639
108	Preheat#5(	0	0	0	0	0	0	0	0	0	0	0
108	FG4 Prehe	0	0	0	0	0	-1	1	0	0	0	0
104	HT3 Soluti	880000	793000	2058000	1442000	900000	1020000	2260000	1095000	897000	1686000	1036000
104	Ht3 North a	234935	217725	272871	358599	227760	218430	415810	221600	196659	283031	236618
104	HT3 South	239000	213000	294000	371400	229800	240200	478200	239000	216300	315400	257500
112A*	HT4 Soluti	1598274	1235906	1702360	1941990	1297619	1458081	2775970	1578640	1249900	1576900	1220800
112B*	HT4 Age*	202830	300190	299230	338833	231631	172066	612680	309490	268110	344990	261700
106	HT2 Soluti	905000	658000	1108000	1238000	789000	1080000	1779000	673000	732000	968000	740000

*** The meters for sources 112A and 112B actually measure the total gas usage for Source 112 and for emission estimation, it is split based on rating between 112A, 112B and 112C.**

		Monthly Gas Usage (MMSCF)										
112A	HT4 Soluti	1.059	0.904	1.177	1.342	0.900	0.959	1.993	1.111	0.893	1.131	0.872
112B	HT4 Quenc	0.106	0.090	0.118	0.134	0.090	0.096	0.199	0.111	0.089	0.113	0.087
112C	HT4 Age	0.636	0.542	0.706	0.805	0.540	0.575	1.196	0.666	0.536	0.678	0.523
104(total)	HT3	1.353935	1.223725	2.624871	2.171999	1.35756	1.47863	3.15401	1.5556	1.309959	2.284431	1.530118

Section C Conditions 006-009
Provided by facility 3/23/14

Limiting Potential CO Emissions for Synthetic Minor Status (2013 Wheel Data)

Jan 14 - 12 Month Press Utilization Spreadsheet

Wheel Production

	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Total
Forge 1	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Forge 4	0	535	121	0	11029	107	0		1190	461	0	168	**13611**
Forge 5	41587	34442	30952	27994	27200	33639	36974	40078	49547	44096	49476	34396	**450381**
Forge 6	32245	49951	43346	49719	44545	38766	27661	31403	33653	31048	31384	36034	**449755**
	73832	84928	74419	77713	82774	72512	64635	71481	84390	75605	80860	70598	**913747**

Press	Stack Emissions (TPY)	Stack Emissions (lbs/hr)	Cycle Time (seconds)	Stack Emissions (lbs/wheel)	Number of Wheels (wheels/yr)	**Stack Emissions (TPY)**
5K Press	15.600	3.562	48.000	0.047	0	**0**
8K Press	15.600	3.562	48.000	0.047	0	**0**
7K Press	17.100	3.904	48.000	0.052	13611	**0.354258904**
7K Press (Line 5)	17.620	4.023	30.000	0.034	450381	**7.549194463**
7K Press (Line 6)	17.620	4.023	30.000	0.034	449755	**7.538701579**

Notes:

Press emissions are based upon stack emissions as determined by the 1999 stack test and presented in the prior permit application.
Emissions for the 2 new 7K presses are based upon 1999 stack test data adjusted to reflect lower lube usage and faster cycle times as reflected in the plan approval application for those sources.
Potential fugitive emissions from the presses (approx. 12 TPY total) are not included in the facility potential to emit for CO for synthetic minor status.
Fugitive emissions from gas-fired combustion sources have been assumed to be at 0 TPY at this time to simplify tracking.

Facility CO Emissions Calculations for Reporting

	(TPY)*
5K Press	**0**
8K Press	**0**
7K Press	**0.3542589**
7K Press (Line 5)	**7.5491945**
7K Press (Line 6)	**7.5387016**
Natural Gas Sources**	**8.59766**

Section C cond.#009 Provided by facility 3/23/14

Estimated NOx Emissions on 12 Month Rolling Average

Enter 12 Mo. Gas Usage in MMSCF: 205.50

Source ID	Source Name	Gas Throughput Capacity (MCF/HR)	12 Mo. Rolling Ave Estimated Actual Usage (MCF/HR)
104	2000 Heat treat Furnaces	17	1.997521822
106A	1995 Sol'n Furnace	9.5	1.116262195
106B	1995 Quench Tank	1	0.117501284
106C	1995 Age Furnace	3.5	0.411254493
108	Process Heating (metered)	0	0
108	(Unmetered portion)[1]	36.7	4.31229711
109	Misc. Gas Usage	99.3	11.66787747
110	Wheel Washers[1,2]	6.65	0.781383536
112A	2006 Sol'n Furnace	10	1.175012836
112B	2006 Quench Tank	1	0.117501284
112C	2006 Age Furnace	6	0.705007702
113	7000 Ton Forge 5 Preheat	4	0.470005135
114	7000 Ton Forge 6 Preheat	4	0.470005135
117	Nat. Gas Generator	1	0.117501284
		199.65	**23.45913128**

5K Press
8K Press
7K Press
7K Press (Line 5)
7K Press (Line 6)

This spreadsheet equally apportions gas usage over all combustion sources and conservatively assu

Estimate NOx Emissions (TPY)
0.874914558
0.488922841
0.051465562
0.180129468
0
1.888786134
5.11053033
0.342245989
0.514655622
0.051465562
0.308793373
0.205862249
0.205862249
0.051465562
10.28
0
0
0.010948493
0.261758758
0.263769331
0.54
10.81

Total From Gas Combustion

Total from presses

Facility Total 12 Mo. Rolling Ave. NOx

Month	Usage (ccf)	
Jan-14	306332	
Feb-13	276717	
Mar-13	264907.65	
Apr-13	175217.7	
May-13	106021.65	
Jun-13	99655.5	
Jul-13	101293.5	
Aug-13	85029	
Sep-13	76521.9	
Oct-13	113,454	
Nov-13	205,989	
Dec-13	243,881	
	2,055,020	
	205.50	MMSCF

mes the small boiler AP-42 factor (100 lb/MMSCF) for all sources.

Source 103 Provided by facility 3/23/14

FORGE 4- SCRUBBER DAILY DATA SHEET

DATE	PIT-100 Inlet Vac	Fan Speed	FIT-162 Recirc Flow (220 gpm min.)	Venturi Damper (12in. min.)	Demister Diff Press	Remarks	Initials
01/01/13							
01/02/13							
01/03/13							
01/04/13							
01/05/13							
01/06/13							
01/07/13							
01/08/13							
01/09/13							
01/10/13							
01/11/13							
01/12/13							
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01/20/13							
01/21/13							
01/22/13							
01/23/13							
01/24/13							
01/25/13							
01/26/13							
01/27/13							
01/28/13	-1.3	39.8	270	36.5	3.9		MB
01/29/13	-1.4	38.9	270	36.4	3.9		MB
01/30/13	-1.4	39.4	271	36.4	4.5		MB
01/31/13	-1.9	39.8	271	35.7	3.7		MB
02/01/13							
02/02/13							
02/03/13							
02/04/13							
02/05/13							

Forge 4
No readings were taken from 2/1/13 - 7/16/13 & were omitted

06/27/13							
06/28/13							
06/29/13							
06/30/13							
07/01/13							
07/02/13							
07/03/13							
07/04/13							
07/05/13							
07/06/13							
07/07/13							
07/08/13							
07/09/13							
07/10/13							
07/11/13							
07/12/13							
07/13/13							
07/14/13							
07/15/13							
07/16/13							
07/17/13	-1.8	39.8	270	35.7	3.9		
07/18/13	-1.9	39.7	271	34.8	4.8		
07/19/13	-1.9	39.9	271	36.2	4.8		
07/20/13							
07/21/13							
07/22/13	-2.1	48.8	276	38.1	4.9		
07/23/13	-2.2	49.4	280	37.7	4.7		
07/24/13	-2.1	48.6	279	38.3	4.8		
07/25/13	-2.4	48.3	278	39.6	4.9		
07/26/13						no production	
07/27/13							
07/28/13							
07/29/13							
07/30/13							
07/31/13							
08/01/13							
08/02/13							
08/03/13							
08/04/13							
08/05/13							
08/06/13							
08/07/13							
08/08/13							
08/09/13							
08/10/13							
08/11/13							
08/12/13							

Sources 104 + 112 Provided by facility 3/23/14

12 Mo. Rolling Average NOx (TPY)

		Feb-14	Jan-14	Dec-13
112A	HT4 Soluti	0.66	0.65	0.65
112B	HT4 Quenc	0.07	0.06	0.06
112C	HT4 Age	0.40	0.39	0.39
104(total)	HT3	1.08	1.09	1.10

12 Mo. Rolling Average CO (TPY)

		Feb-14	Jan-14	Dec-13
112A	HT4 Soluti	0.56	0.55	0.55
112B	HT4 Quenc	0.06	0.05	0.05
112C	HT4 Age	0.33	0.33	0.33
104(total)	HT3	0.91	0.91	0.93

12 Mo. Rolling Average PM (TPY)

		Feb-14	Jan-14	Dec-13
112A	HT4 Soluti	0.050	0.049	0.049
112B	HT4 Quenc	0.005	0.005	0.005
112C	HT4 Age	0.030	0.030	0.030
104(total)	HT3	0.082	0.082	0.084

12 Mo. Rolling Average SOx (TPY)

		Feb-14	Jan-14	Dec-13
112A	HT4 Soluti	0.004	0.004	0.004
112B	HT4 Quenc	0.000	0.000	0.000
112C	HT4 Age	0.002	0.002	0.002
104(total)	HT3	0.006	0.007	0.007

12 Mo. Rolling Average VOC (TPY)

		Feb-14	Jan-14	Dec-13
112A	HT4 Soluti	0.036	0.036	0.036
112B	HT4 Quenc	0.004	0.004	0.004
112C	HT4 Age	0.022	0.021	0.021
104(total)	HT3	0.059	0.060	0.061

Source 113 Provided by facility 3/23/14

FORGE 5 - SCRUBBER DAILY DATA SHEET

DATE	DUCT PRS (IN H2O)	VENT DP (IN H2O)	MESH DP (IN H2O)	PMP FLW (GPM)	REMARKS	INIT.
	MUST BE 30-45			MUST BE 200-310		
01/01/13					No Production	MB
01/02/13	-0.3	40.7	3.6	227		MB
01/03/13	-0.4	40.9	3.8	227		MB
01/04/13	-0.3	39.9	4.8	226		MB
01/05/13						
01/06/13						
01/07/13	-0.3	39.6	4.9	227		MB
01/08/13	-0.3	39.4	5	228		MB
01/09/13	-0.2	39.2	5.6	226		MB
01/10/13	-0.2	38.9	5.3	224		MB
01/11/13	-0.3	39.1	5.1	228		MB
01/12/13						
01/13/13						
01/14/13	-0.3	34.9	4.7	225		MB
01/15/13	-0.1	34.6	4.7	229		MB
01/16/13	-0.3	39.9	5.3	227		MB
01/17/13	-0.2	40.2	5.9	227		MB
01/18/13	-1.6	37.2	5.8	225		MB
01/19/13						
01/20/13						
01/21/13					MLK day	MB
01/22/13	-0.3	33.8	4.6	227		MB
01/23/13	-0.3	39.2	4.8	227		MB
01/24/13	-0.3	34.7	4.9	226		MB
01/25/13	-0.2	34.6	3.9	229		MB
01/26/13						
01/27/13						
01/28/13	-0.3	37.7	5	225		MB
01/29/13	-1.6	36.1	4.7	224		MB
01/30/13	-1.7	40.1	5.1	222		MB
01/31/13	-1.6	36.1	4.8	226		MB
02/01/13	-1.6	36.1	5.1	225		MB
02/02/13						MB
02/03/13						
02/04/13	-1.6	37	4.8	226		MB
02/05/13	-1.5	33.6	5	226		MB
02/06/13	-1.6	36.5	5.2	226		MB
02/07/13	-1.5	36.1	5.2	226		MB
02/08/13	-1.5	37.1	5.3	226		MB
02/09/13						
02/10/13						

Source 1H4 Provided by facility 3/23/14

FORGE 6 - SCRUBBER DAILY DATA SHEET

DATE	DUCT PRS (IN H2O)	VENT DP (IN H2O)	MESH DP (IN H2O)	PMP FLW (GPM)	REMARKS	INIT.
	MUST BE 30-45			MUST BE 200-310		
01/02/13	-0.4	39.2	3.8	226		MB
01/03/13	-0.4	40.2	3.7	227		MB
01/04/13	-0.4	40.8	4	231		MB
01/05/13						
01/06/13						
01/07/13	-0.4	37.8	4.4	229		MB
01/08/13	-0.5	38.2	4.6	231		MB
01/09/13	-0.3	41.1	4.7	229		MB
01/10/13	-0.2	39.6	5.6	229		MB
01/11/13	-0.3	34.4	4.3	229		MB
01/12/13						
01/13/13						
01/14/13	-0.4	40.5	4.4	227		MB
01/15/13	-0.2	40.1	4.9	228		MB
01/16/13	-0.3	40.4	4.8	228		MB
01/17/13	-0.2	36.9	5.1	227		MB
01/18/13	-1.8	33.3	4.5	226		MB
01/19/13						
01/20/13						
01/21/13	-0.2	39.9	4.6	230		MB
01/22/13	-0.2	41.2	4.7	228		MB
01/23/13	-0.5	38.3	4.1	229		MB
01/24/13	-0.3	37.1	4	231		MB
01/25/13	-0.4	40.5	4.9	230		MB
01/26/13						
01/27/13						
01/28/13					Down for s	MB
01/29/13					Down for s	MB
01/30/13					Down for s	MB
01/31/13					Down for s	MB
02/01/13	-1.9	33.8	3.1	227		MB
02/02/13						MB
02/03/13						
02/04/13	-1.9	39.6	2.1	231		MB
02/05/13	-1.8	36.4	2.3	230		MB
02/06/13	-1.8	33.9	2.5	220		MB
02/07/13	-1.9	36.3	2.5	222		MB
02/08/13	-1.8	32.4	2.5	218		MB
02/08/13	-1.8	32.4	2.5			MB
02/09/13						
02/10/13						