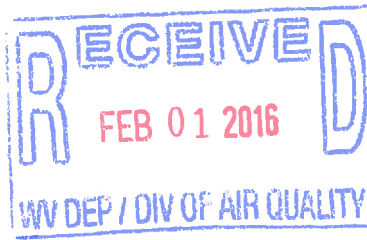


ArcelorMittal Weirton  
Flat Carbon Steel



ArcelorMittal

January 29, 2016

Via FEDEX and Electronic Mail

Mr. Edward S. Andrews, P.E.  
WV Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

**Subject: ArcelorMittal Weirton LLC  
Permit Determination Form; Administrative Update - Permit R13-0032B  
Removal of HCl Acid Regeneration Units 1, 2, 3 and 4 and  
Request for Area Source Designation for HAP Emissions  
Facility ID: 029-00001**

Dear Mr. Andrews:

ArcelorMittal Weirton LLC (ArcelorMittal) appreciates the opportunity to submit the attached Permit Determination Form (PDF) for an administrative update of Installation Permit R13-0032B for the facility located in Weirton, West Virginia. We are submitting this administrative permit amendment request per the guidance provided by Ms. Bobbie Scroggie, WVDEP, via email on January 25, 2016. Ms. Scroggie and the WVDEP Title V Program Manager agreed that this submittal should occur by January 31, 2016 in order to support ArcelorMittal's request to re-designate the facility as an Area Source of emissions of Hazardous Air Pollutants (HAPs) prior to January 31, 2016.

This re-designation will also provide relief from the requirements of 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters (Major Source Boiler MACT) for the following existing combustion sources at the facility as previously identified in the Major Source Boiler MACT notification submitted to USEPA on May 29, 2013:

Unit ID	Description	Capacity, MMBtu/hr	Fuel Used
056/1	Jumbo Anneals 1-4	Each unit is 10	Natural Gas
057/1	Jumbo Anneals 5-8	Each unit is 10	Natural Gas
058/1	Jumbo Anneals 9-12	Each unit is 10	Natural Gas
060/1	Continuous Anneal Line 1	96	Natural Gas
061/1	Continuous Anneal Line 2	96	Natural Gas
062/1	Continuous Anneal Line 3	96	Natural Gas
078-1	Anode Pot 1	5	Natural Gas
078-2	Anode Pot 2	5	Natural Gas
078-3	Anode Pot 3	5	Natural Gas
Lochinvar Boiler	MAB Comfort Heating	1.8	Natural Gas

ArcelorMittal understands that these existing combustion sources identified above will now be considered applicable sources subject to the Area Boiler NESHAP, 40 CFR Part 63, Subpart JJJJJ.

ArcelorMittal acknowledges that the five new package boilers, S108, S110, S111, S112 and S113 recently installed and commissioned in the 1<sup>st</sup> quarter of 2015 will remain applicable to the Major Source Boiler MACT requirements.

Per the guidance provided by Ms. Scroggie on January 25, 2016, this Class I Modification request for R13-0032B has no associated fee and public notice will not be required. As of August 21, 2009, ArcelorMittal had permanently shut down the following processes and associated equipment as listed in R13-0032B:

<u>Unit ID</u>	<u>Point ID</u>	<u>Description</u>	<u>Control Device</u>
046/2	S114	No. 1 HCl Regeneration Unit	Scrubber C114
047/2	S115	No. 2 HCl Regeneration Unit	Scrubber C115
048/2	S116	No. 3 HCl Regeneration Unit	Scrubber C115
049/2	S117	No. 4 HCl Regeneration Unit	Scrubber C115

ArcelorMittal requests that the West Virginia Department of Environmental Protection (WVDEP) formally remove these units from Permit R13-0032B. Only the HCl storage tanks and associated air pollution control equipment will remain in operation.

ArcelorMittal also requests that this facility be formally declared an area source of hazardous air pollutants (HAPs) based on this PDF administrative update and the facility-wide potential to emit (PTE) information and re-designation request previously submitted to WVDEP on December 7, 2015. ArcelorMittal will not have to take any new/additional operational limitations in order to meet the designation as an area source of HAP emissions. The site's Title V operational Permits, Part 1 and Part 2, are due for renewal in 2016 and the applications to be submitted will include the applicable requirements consistent with the information noted above.

Please contact Mr. Mike Mieczkowski at (304) 797-3908, if you may have any questions or require additional information.

Sincerely,



Matthew E. Caprarese, P.E.  
Division Manager, MEU  
ArcelorMittal Weirton LLC

Attachments

cc:

Mike Mieczkowski – ArcelorMittal Weirton LLC  
Brian James - ArcelorMittal Weirton LLC  
Rich Zavoda – ArcelorMittal USA  
Ms. Bobbie Scroggie – WVDEP (electronic)



WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF AIR QUALITY  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: (304) 926-0475  
www.dep.wv.gov/daq

**PERMIT DETERMINATION FORM  
(PDF)**

FOR AGENCY USE ONLY: PLANT I.D. # \_\_\_\_\_  
PDF # \_\_\_\_\_ PERMIT WRITER: \_\_\_\_\_

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE): ArcelorMittal Weirton LLC		
2. NAME OF FACILITY (IF DIFFERENT FROM ABOVE): Same as above		3. NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE:  331110
4A. MAILING ADDRESS: 100 Pennsylvania Ave Weirton, WV 26062		4B. PHYSICAL ADDRESS: Same as mailing address
5A. DIRECTIONS TO FACILITY (PLEASE PROVIDE MAP AS ATTACHMENT A): From US 22, Take Exit 2 WV-2 North to Downtown Weirton. Continue on WV-2 North (Main St.) for approximately 3.6 miles. Just before the intersection with Pennsylvania Ave, turn right into the parking lot adjacent to a three story brick building (Mill Administration Building).		
5B. NEAREST ROAD: Pennsylvania Avenue	5C. NEAREST CITY OR TOWN: Weirton	5D. COUNTY: Hancock
5E. UTM NORTHING (KM): 533.7	5F. UTM EASTING (KM): 4474.5	5G. UTM ZONE: Zone 17
6A. INDIVIDUAL TO CONTACT IF MORE INFORMATION IS REQUIRED: Mike Mieczkowski		6B. TITLE: Manager-Environmental
6C. TELEPHONE: (304) 797-3908	6D. FAX: (304) 797-2391	6E. E-MAIL: mike.mieczkowski@arcelormittal.com
7A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY ONLY):  029-00001	7B. PLEASE LIST ALL CURRENT 45CSR13, 45CSR14, 45CSR19 AND/OR TITLE V (45CSR30) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR AN EXISTING FACILITY ONLY):  R13-0032B	
7C. IS THIS PDF BEING SUBMITTED AS THE RESULT OF AN ENFORCEMENT ACTION? IF YES, PLEASE LIST:  No		
8A. TYPE OF EMISSION SOURCE (CHECK ONE): <input type="checkbox"/> NEW SOURCE <input checked="" type="checkbox"/> ADMINISTRATIVE UPDATE  <input type="checkbox"/> MODIFICATION <input type="checkbox"/> OTHER (PLEASE EXPLAIN IN 11B)		8B. IF ADMINISTRATIVE UPDATE, DOES DAQ HAVE THE APPLICANT'S CONSENT TO UPDATE THE EXISTING PERMIT WITH THE INFORMATION CONTAINED HEREIN?  <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
9. IS DEMOLITION OR PHYSICAL RENOVATION AT AN EXISTING FACILITY INVOLVED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
10A. DATE OF ANTICIPATED INSTALLATION OR CHANGE:  01/31/2016.	10B. DATE OF ANTICIPATED START-UP:  N/A	
11A. PLEASE PROVIDE A DETAILED PROCESS FLOW DIAGRAM SHOWING EACH PROPOSED OR MODIFIED PROCESS EMISSION POINT AS ATTACHMENT B.		
11B. PLEASE PROVIDE A DETAILED PROCESS DESCRIPTION AS ATTACHMENT C.		
12. PLEASE PROVIDE MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS PROCESSED, USED OR PRODUCED AS ATTACHMENT D. FOR CHEMICAL PROCESSE, PLEASE PROVIDE A MSDS FOR EACH COMPOUND EMITTED TO AIR. N/A		

**13A. REGULATED AIR POLLUTANT EMISSIONS:**

⇒ FOR A NEW FACILITY, PLEASE PROVIDE PLANT WIDE EMISSIONS BASED ON THE POTENTIAL TO EMIT (PTE) FOR THE FOLLOWING AIR POLLUTANTS INCLUDING ALL PROCESSES.  
 ⇒ FOR AN EXISTING FACILITY, PLEASE PROVIDE THE PROPOSED CHANGE IN EMISSIONS BASED ON THE PTE OF ALL PROCESS CHANGES FOR THE FOLLOWING AIR POLLUTANTS.  
 PTE FOR A GIVEN POLLUTANT IS TYPICALLY BEFORE AIR POLLUTION CONTROL DEVICES AND IS COLLECTED BASED ON THE MAXIMUM DESIGN CAPACITY OF PROCESS EQUIPMENT.

POLLUTANT	HOURLY PTE (LB/HR)	YEARLY PTE (TON/YR) (HOURLY PTE MULTIPLIED BY 8760 HR/YR) DIVIDED BY 2000 LB/TON
PM	(0.265)	(1.162)
PM <sub>10</sub>	(0.265)	(1.162)
VOCs	(0.192)	(0.841)
CO	(2.932)	(12.841)
NO <sub>x</sub>	(3.490)	(15.287)
SO <sub>2</sub>	(0.021)	(0.092)
Pb	(0.00002)	(0.00008)
HAPs (AGGREGATE AMOUNT)	(2.93)	(12.816)
TAPs (INDIVIDUALLY)*	N/A	N/A
OTHER (INDIVIDUALLY)*	N/A	N/A

\* ATTACH ADDITIONAL PAGES AS NEEDED

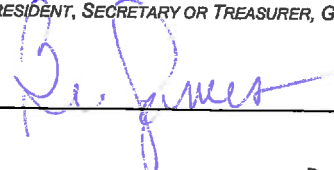
**13B. PLEASE PROVIDE ALL SUPPORTING CALCULATIONS AS ATTACHMENT E.**

CALCULATE AN HOURLY AND YEARLY PTE OF EACH PROCESS EMISSION POINT (SHOWN IN YOUR DETAILED PROCESS FLOW DIAGRAM) FOR ALL AIR POLLUTANTS LISTED ABOVE INCLUDING INDIVIDUAL HAP'S (LISTED IN SECTION 112[b] OF THE 1990 CAAA), TAP'S (LISTED IN 45CSR27), AND OTHER AIR POLLUTANTS (E.G. POLLUTANTS LISTED IN TABLE 45-13A OF 45CSR13, MINERAL ACIDS PER 45CSR7, ETC.).

**14. CERTIFICATION OF DATA**

I, BRIAN JAMES ATTEST THAT ALL THE REPRESENTATIONS CONTAINED IN THIS APPLICATION, OR APPENDED HERETO, ARE TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE BASED ON INFORMATION AND BELIEF AFTER REASONABLE INQUIRY, AND THAT I AM A RESPONSIBLE OFFICIAL\*\* (PRESIDENT, VICE PRESIDENT, SECRETARY OR TREASURER, GENERAL PARTNER OR SOLE PROPRIETOR) OF THE APPLICANT.

SIGNATURE OF RESPONSIBLE OFFICIAL: \_\_\_\_\_



TITLE: GENERAL MANAGER

DATE: 1 / 29 / 16

\*\* THE DEFINITION OF THE PHRASE 'RESPONSIBLE OFFICIAL' CAN BE FOUND AT 45CSR13, SECTION 2.23.

**NOTE: PLEASE CHECK ENCLOSED ATTACHMENTS:**

ATTACHMENT A     ATTACHMENT B     ATTACHMENT C     ATTACHMENT D     ATTACHMENT E

RECORDS ON ALL CHANGES ARE REQUIRED TO BE KEPT AND MAINTAINED ON-SITE FOR TWO (2) YEARS.

THE PERMIT DETERMINATION FORM WITH THE INSTRUCTIONS CAN BE FOUND ON DAQ'S PERMITTING SECTION WEB SITE:

[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)

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**ATTACHMENT A**

**Site Map**



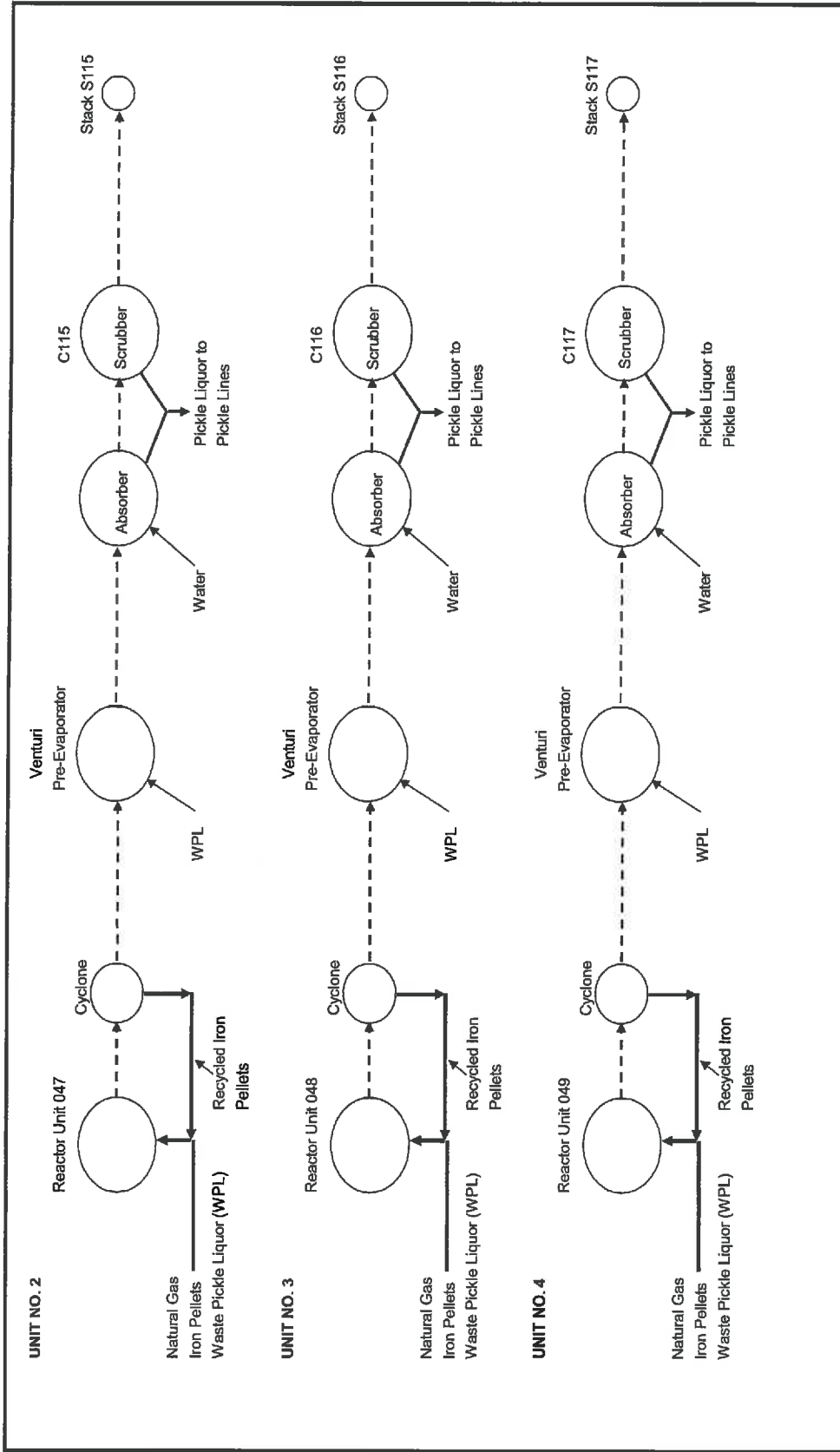
**Class I Permit Modification**  
**Site Overview**  
**ArcelorMittal Weirton LLC, Weirton, WV**

**Figure**  
**A-1**

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**ATTACHMENT B**

**Process Flow Diagram**



**HCl Acid Regeneration Plant**  
**Process Flow Diagram (Note that Unit No. 1 not shown)**  
**ArcelorMittal Weirton LLC, Weirton, WV**

DATE: 1/27/2016

DRAWN BY: NMH

Figure:  
1





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**ATTACHMENT C**

**Project Description**

## **ATTACHMENT C**

### **Project Description**

ArcelorMittal Weirton LLC (ArcelorMittal) is submitting this application for a Class I Administrative Update to the *Permit to Modify No. R13-0032B*. The update will entail removing the No. 1 through No. 4 HCl Regeneration Units from the permit. HCl Regeneration Unit Nos. 2, 3 and 4 were officially shut down on August 20, 2009 and have been inoperative since that time. HCl Regeneration Unit No. 1 had also been inoperative since the mid-1990s. The emissions from these units were controlled by wet scrubbers.

The nine HCl storage tanks, designated as HCL A-H and HCL-T and associated air pollution control equipment will remain in operation.

Removing the four HCl Regeneration Units from the permit will reduce ArcelorMittal's Potential to Emit (PTE) for hazardous air pollutants (HAPS) by approximately 2.9 pounds per hour (lb/hr) and 12.8 tons per year (TPY) based on controlled emissions. This reduction in annual PTE for HAP emissions will aid in placing ArcelorMittal below the regulatory threshold to be considered a major source of HAPS.

In addition to this description, the application package includes a completed Permit Determination Form (PDF), a facility map showing the location of the HCl Regeneration Units (Attachment A), a process flow diagram (Attachment B) and supporting emission calculations (Attachment E).

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**ATTACHMENT D**

**Safety Data Sheets  
(NOT APPLICABLE)**

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**ATTACHMENT E**

**Emissions Calculations**

Table 1. Potential To Emit Emission Calculations, Hydrochloric Acid Regeneration Plant Process  
 Permit Determination Form - R13-0032B  
 ArcelorMittal Weirton LLC, Weirton, West Virginia

HCl Plant Process HAP Summary														
i-Steps ID	Control Device	Control Device ID	Stack ID	Capture Efficiency %	Control Efficiency %	Capacity tons/hr	Operating Hours	Emission Factor <sup>1</sup> (lb/hr)		PTE Uncontrolled Emissions (ton/yr)		PTE Controlled Emissions (ton/yr)		
								HCl	Cl	HCl	Cl	HCl	Cl	
No. 1 Unit	046-2	Scrubber	C114	S114	100	95	68.8	8,760	0.440	0.275	38.544	24,090	1.927	1.205
No. 2 Unit	047-2	Scrubber	C115	S115	100	95	68.8	8,760	0.440	0.275	38.544	24,090	1.927	1.205
No. 3 Unit	048-2	Scrubber	C115	S116	100	95	68.8	8,760	0.440	0.275	38.544	24,090	1.927	1.205
No. 4 Unit	049-2	Scrubber	C115	S117	100	95	68.8	8,760	0.440	0.275	38.544	24,090	1.927	1.205
								TOTAL		7.709		4.818		

HCL Plant Combustion HAP Summary		
	TPY	lb/hr
No. 1 Unit	7.21E-02	1.65E-02
No. 2 Unit	7.21E-02	1.65E-02
No. 3 Unit	7.21E-02	1.65E-02
No. 4 Unit	7.21E-02	1.65E-02
TOTAL	2.89E-01	6.59E-02

Total PTE HAP Reduction		
	TPY	lb/hr
No. 1 Unit	3.20	7.31E-01
No. 2 Unit	3.20	7.31E-01
No. 3 Unit	3.20	7.31E-01
No. 4 Unit	3.20	7.31E-01
TOTAL	12.82	2.93

Table 2.

Potential-to-Emit Emission Calculations, HCl Regeneration Plant Combustion  
 Permit Determination Form - R13-0032B  
 ArcelorMittal Weirton LLC, Weirton, West Virginia

Pollutant	Source i-Steps-ID Fuel Rated Capacity (MMBtu/hr) Potential Natural Gas Usage (mmcf/hr) <sup>2</sup> Potential Natural Gas Usage (mmcf/yr) <sup>3</sup>	HCl Regeneration Unit 1		HCl Regeneration Unit 2		HCl Regeneration Unit 3		HCl Regeneration Unit 4		Total PTE Emissions (lb/hr)	Total PTE Emissions (tons/yr)
		PTE Emissions (lb/hr)	PTE Emissions (tons/yr)	PTE Emissions (lb/hr)	PTE Emissions (tons/yr)	PTE Emissions (lb/hr)	PTE Emissions (tons/yr)	PTE Emissions (lb/hr)	PTE Emissions (tons/yr)		
PM	Natural Gas	7.6	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.265	1.162
PM10		7.6	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.265	1.162
PM2.5		7.6	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.265	1.162
NOx		100	3.8	0.9	3.8	0.9	3.8	0.9	3.8	3.490	15.287
SO <sub>2</sub>		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.021	0.092
CO		84	3.2	0.7	3.2	0.7	3.2	0.7	3.2	2.932	12.841
N <sub>2</sub> O		2.2	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.077	0.336
CO <sub>2</sub>		120,000	4,586.1	1047.1	4,586.1	1047.1	4,586.1	1047.1	4,586.1	4,188.235	18,344.471
CH <sub>4</sub>		2.3	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.080	0.352
VOC		5.5	0.2	0.0	0.2	0.0	0.2	0.0	0.2	0.192	0.841
Benzene <sup>4</sup>		2.10E-03	8.03E-05	1.83E-05	8.03E-05	1.83E-05	8.03E-05	1.83E-05	8.03E-05	7.33E-05	3.21E-04
Naphthalene <sup>4</sup>		6.10E-04	2.33E-05	5.32E-06	2.33E-05	5.32E-06	2.33E-05	5.32E-06	2.33E-05	2.13E-05	9.33E-05
Toluene <sup>4</sup>		3.40E-03	1.30E-04	2.97E-05	1.30E-04	2.97E-05	1.30E-04	2.97E-05	1.30E-04	1.19E-04	5.20E-04
POM <sup>4</sup>		8.82E-05	3.37E-06	7.70E-07	3.37E-06	7.70E-07	3.37E-06	7.70E-07	3.37E-06	3.08E-06	1.35E-05
Formaldehyde <sup>4</sup>		7.50E-02	2.87E-03	6.54E-04	2.87E-03	6.54E-04	2.87E-03	6.54E-04	2.87E-03	2.62E-03	1.15E-02
Hexane <sup>4</sup>		1.80E+00	6.88E-02	1.57E-02	6.88E-02	1.57E-02	6.88E-02	1.57E-02	6.88E-02	6.28E-02	2.75E-01
PACS		1.44E-05	5.50E-07	1.26E-07	5.50E-07	1.26E-07	5.50E-07	1.26E-07	5.50E-07	5.03E-07	2.20E-06
benzo(g,h,i)perylene		1.20E-06	4.59E-08	1.05E-08	4.59E-08	1.05E-08	4.59E-08	1.05E-08	4.59E-08	4.19E-08	1.83E-07
Anthracene		2.40E-06	9.17E-08	2.09E-08	9.17E-08	2.09E-08	9.17E-08	2.09E-08	9.17E-08	8.38E-08	3.67E-07
Phenanthrene		1.70E-05	6.50E-07	1.48E-07	6.50E-07	1.48E-07	6.50E-07	1.48E-07	6.50E-07	5.93E-07	2.60E-06
Antimony		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic <sup>4</sup>		2.00E-04	7.64E-06	1.75E-06	7.64E-06	1.75E-06	7.64E-06	1.75E-06	7.64E-06	6.98E-06	3.06E-05
Barium		4.40E-03	1.68E-04	3.84E-05	1.68E-04	3.84E-05	1.68E-04	3.84E-05	1.68E-04	1.54E-04	6.73E-04
Beryllium <sup>4</sup>		1.20E-05	4.59E-07	1.05E-07	4.59E-07	1.05E-07	4.59E-07	1.05E-07	4.59E-07	4.19E-07	1.83E-06
Cadmium <sup>4</sup>		1.10E-03	4.20E-05	9.60E-06	4.20E-05	9.60E-06	4.20E-05	9.60E-06	4.20E-05	3.84E-05	1.68E-04
Chromium <sup>4</sup>		1.40E-03	5.35E-05	1.22E-05	5.35E-05	1.22E-05	5.35E-05	1.22E-05	5.35E-05	4.89E-05	2.14E-04
Cobalt <sup>4</sup>		8.40E-05	3.21E-06	7.33E-07	3.21E-06	7.33E-07	3.21E-06	7.33E-07	3.21E-06	2.93E-06	1.28E-05
Copper		8.58E-04	3.28E-05	7.49E-06	3.28E-05	7.49E-06	3.28E-05	7.49E-06	3.28E-05	2.99E-05	1.31E-04
Lead <sup>4</sup>		0.0005	1.91E-05	4.36E-06	1.91E-05	4.36E-06	1.91E-05	4.36E-06	1.91E-05	1.75E-05	7.64E-05
Manganese <sup>4</sup>		3.80E-04	1.45E-05	3.32E-06	1.45E-05	3.32E-06	1.45E-05	3.32E-06	1.45E-05	1.33E-05	5.81E-05
Mercury <sup>4</sup>		2.60E-04	9.94E-06	2.27E-06	9.94E-06	2.27E-06	9.94E-06	2.27E-06	9.94E-06	9.07E-06	3.97E-05
Nickel <sup>4</sup>		2.10E-03	8.03E-05	1.83E-05	8.03E-05	1.83E-05	8.03E-05	1.83E-05	8.03E-05	7.33E-05	3.21E-04
Selenium <sup>4</sup>		2.40E-05	9.17E-07	2.09E-07	9.17E-07	2.09E-07	9.17E-07	2.09E-07	9.17E-07	8.38E-07	3.67E-06
Vanadium		2.30E-03	8.79E-05	2.01E-05	8.79E-05	2.01E-05	8.79E-05	2.01E-05	8.79E-05	8.03E-05	3.52E-04
Zinc		2.90E-02	1.11E-03	2.53E-04	1.11E-03	2.53E-04	1.11E-03	2.53E-04	1.11E-03	1.01E-03	4.43E-03
TOTAL HAPs				1.65E-02	7.21E-02	1.65E-02	7.21E-02	1.65E-02	7.21E-02	6.59E-02	2.89E-01

<sup>1</sup> Emission factors contained in AP-42, Section 1.4, Natural Gas Combustion, 7.9%. Emission factor for PM is the sum of condensable and filterable.

<sup>2</sup> Heating Value of Natural Gas = 1,020 BTU/cf

<sup>4</sup> Hazardous Air Pollutant (HAP) chemical

