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10 February 2009

Mr. Bradley A. Klotz
Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Air Quality Management Section
715 Grantham Lane
New Castle, DE 19720

Re: Evraz Claymont Steel – Ambient Air Monitoring Report

Dear Mr. Klotz:

Evraz Claymont Steel (ECS) is providing a report of the ambient air sampling program from March 11, 2008 through December 31, 2008. Data from the simultaneous operation of all four monitors is presented from June 9, 2008, through December 31, 2008, representing the first complete six (6) month data set. As a follow-up to the report that was e-mailed to you yesterday, enclosed is a cd of the report with the appendices.

If you have any questions, please don't hesitate to contact me at (302) 792-5444.

Sincerely,



David Wagner
Environmental Consultant

Enclosures

Ambient Air Monitoring Program Six Month Progress Report

Evraz Claymont Steel Claymont, Delaware

Prepared for:

**Evraz Claymont Steel
Claymont, Delaware**

Prepared by:

**AECOM Technical Services, Inc.
2 Market Plaza Way
Mechanicsburg, Pennsylvania 17055**

February 2009

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EXECUTIVE SUMMARY

On December 21, 2007 the Delaware Department of Natural Resources and Environmental Control (DNREC) approved the implementation plan and schedule submitted by Claymont Steel in support of the required projects and tasks associated with the improvements to dust control measures at its steel-making facility in Claymont, Delaware. The Ambient Air Monitoring Program (AAMP) is measuring total suspended particulate (TSP) as part of the approved implementation plan. .

As agreed upon in a July 25, 2007 meeting with DNREC, four (4) ambient air monitors were installed at four (4) agreed upon locations. These locations were based on upwind, down wind, and cross wind potential impacts. Four (4) Partisol Model 2000 Air Samplers were subsequently installed at Woodshaven-Kruse Park, Knollwood Park, the Claymont Community Center, and the Tri-State Mall. These monitors began collecting samples on March 11, March 11, April 4, and June 9, 2008 respectively. This report is a summary of the data from March 11, 2008 to December 31, 2008.

1.0 INTRODUCTION

The Evraz Claymont Steel Ambient Air Monitoring Program (AAMP) was initiated in the fall of 2007 as part of a larger fugitive dust study at the plant. Total Suspended Particulate (TSP) refers to particles ranging in size up to 30 micrometers in diameter. The Partisol Model 2000 Air Sampler, manufactured by Rupprecht & Patashnick (R&P) Co., was selected as the sampling device for the AAMP. An ambient air monitoring network was developed that stressed site selection sensitive to nearby populated areas and varying wind directions. Four (4) Partisol Model 2000 Air Samplers were subsequently installed at Woodshaven-Kruse Park, Knollwood Park, the Claymont Community Center, and the Tri-State Mall. These monitors began collecting samples on March 11, March 11, April 4, and June 9, 2008 respectively.

2.0 SAMPLING

Samples are collected at each monitor every six (6) days. The monitors sample continuously for a 24-hour period from midnight to midnight on a standard 47 mm filter disk. The filters used are conditioned and weighed before collection, and then conditioned and weighed again after use to determine the mass of particulate collected during the 24-hour exposure time. Data is reported as mass concentration (micrograms of TSP per cubic meter of air). The mass concentration is determined by dividing the mass of particulate detected by the volume of air recorded by the Partisol Sampler over the 24-hour period. The United States Environmental Protection Agency (USEPA) requires that reported mass concentration data for particulate matter must be referenced to standard conditions of 25° C temperature and 1 atmosphere pressure. The Partisol Model 2000 Air Sampler accomplishes this by monitoring ambient temperature and pressure and automatically adjusts flow conditions to correct total flow over a 24-hour period to these referenced standard conditions. Throughout the conduct of the AAMP all filter handling/ conditioning/ exchange, instrument operation and maintenance procedures are followed according to the Partisol Model 2000 Operating Manual as discussed and agreed upon in the July 25, 2007 meeting with Delaware Department of Natural Resources and Environmental Control (DNREC). The units were calibrated in accordance with the standard. Calibration records are included in Appendix E. All TSP sampling was performed by AECOM with laboratory services provided by American Westech, Inc.

3.0 RESULTS

The sampling program covered in this report spans from March 11, 2008, through December 31, 2008. Data from the simultaneous operation of all four monitors is available from June 9, 2008, through December 31, 2008, representing the first complete six (6) month data set.

Figure 1 shows the data set of the first six months of simultaneous operation of the four monitoring locations. The raw data is included in Appendices A, B, and G.

DNREC Regulation No. 3 Ambient Air Quality Standards (AAQS) Section 3 sets the Primary and Secondary AAQS for particulate matter at an annual geometric mean of 75 and 60 micrograms per cubic meter, respectively. The geometric mean is defined as the Nth root of the product of N numbers. The Delaware AAQS are set to assure that ambient air quality shall be consistent with established criteria and shall serve to effectively and reasonably manage the air resources of the State of Delaware. Table 1 summarizes the AAMP TSP concentration data. Although the data is only for 6 – 9 months, the calculated geometric mean of the data from all four monitoring stations from March 11 through December 31, 2008, is 22.5 micrograms per cubic meter. The geometric mean for the four sampling locations is less than both the Delaware Primary and Secondary annual AAQSs for TSP.

DNREC Regulation No. 3 AAQS Section 3 sets the Primary and Secondary AAQS limits for particulate matter not to be exceeded more than once per year of 260 and 150 micrograms per cubic meter, respectively. There have been no exceedances at any of the AAMP monitor locations. Figure 2 shows the AAMP data and the Delaware AAQS exceedance thresholds.

Table 1. Ambient Air Monitoring Program Station Data

Note: All data given in micrograms/ cubic meter

Geometric Mean of Data					DE Ambient Air Quality Standards				
All Stations	Sampler ID 20932	Sampler ID 20933	Sampler ID 20934	Sampler ID 20936	Primary	75	Secondary	60	
22.5	19.3	21.8	25.3	24.2					
	Location/ Sampler ID					Location/ Sampler ID			
	Claymont Community Center	Woodshaven-Kruse Park	Knollwood Park	Tri-State Mall		Claymont Community Center	Woodshaven-Kruse Park	Knollwood Park	Tri-State Mall
Date Sampled	Sampler ID 20932	Sampler ID 20933	Sampler ID 20934	Sampler ID 20936	Date Sampled	Sampler ID 20932	Sampler ID 20933	Sampler ID 20934	Sampler ID 20936
3/11/2008		32.8	38.3		8/20/2008	77.0	21.0	28.3	21.8
3/17/2008		26.8	10.6		8/26/2008	25.7	13.0	37.5	37.8
3/23/2008			4.2		9/1/2008	22.6	27.8	21.2	12.3
3/29/2008		11.0	20.2		9/7/2008	7.42	14.0	15.2	25.9
4/4/2008	16.5	24.3	25.1		9/13/2008	21.6	23.6	14.1	20.3
4/10/2008	21.2	20.0	47.2		9/19/2008	18.3	42.4	58.0	24.0
4/16/2008	17.7	25.4	22.3		9/25/2008	30.2	37.2	91.2	41.5
4/22/2008	72.7	78.0	109		10/1/2008	15.9	27.7	16.3	19.1
4/28/2008	17.9	21.1	37.8		10/7/2008	12.5	8.97	16.4	11.7
5/4/2008	38.6	32.1	47.8		10/13/2008	30.5	26.3	44.3	39.1
5/10/2008	17.6	3.19	15.6		10/19/2008	13.2	11.2	13.9	23.2
5/16/2008	19.0	19.7	42.3		10/25/2008	28.5	20.0	43.7	12.8
5/22/2008	18.1	14.8	14.1		10/31/2008	1.17	18.7	4.26	
5/28/2008	18.4	18.3	23.5		11/6/2008	1.21	10.1	9.69	7.66
6/3/2008	25.5	48.3	34.5		11/12/2008	32.7	27.3	24.2	34.2
6/9/2008	38.3	41.4	44.4	50.4	11/18/2008	8.36	1.89	6.44	1.08
6/15/2008	22.5	21.1	45.2	32.8	11/24/2008	20.6	26.6	36.5	39.9
6/21/2008	34.7	36.2	38.3	52.7	11/30/2008	7.83	14.8	20.7	17.5
6/27/2008	29.3	47.5	49.3	57.6	12/6/2008	24.9	22.9	24.1	36.1
7/3/2008	36.3	74.4	50.0	66.1	12/12/2008	14.8	13.2	14.0	13.6
7/9/2008	25.0	59.4	33.2	45.2	12/18/2008	20.1	21.5	22.7	26.1
7/15/2008	32.0	34.7	46.0	33.1	12/24/2008	8.85	11.5	13.0	23.4
7/21/2008	28.2	28.9	33.1	29.8	12/30/2008			16.2	3.1
7/27/2008	22.4	40.1	24.8	57.0		Pump ran for 84 hrs due to pwr surge			
8/2/2008	34.8	33.8	33.8	42.1		Pump ran for 22:41 hrs due to pwr outage			
8/8/2008	17.0	18.2	37.7	19.0		Pump ran for 37 hrs due to pwr surge			
8/14/2008	18.7	28.6	24.9	39.3		Sampling abnormality- see App. D Laboratory Summary			

Figure 1. Evraz Claymont Steel Ambient Air Monitoring Program Data
First 6 Months of Operation of All Four Stations

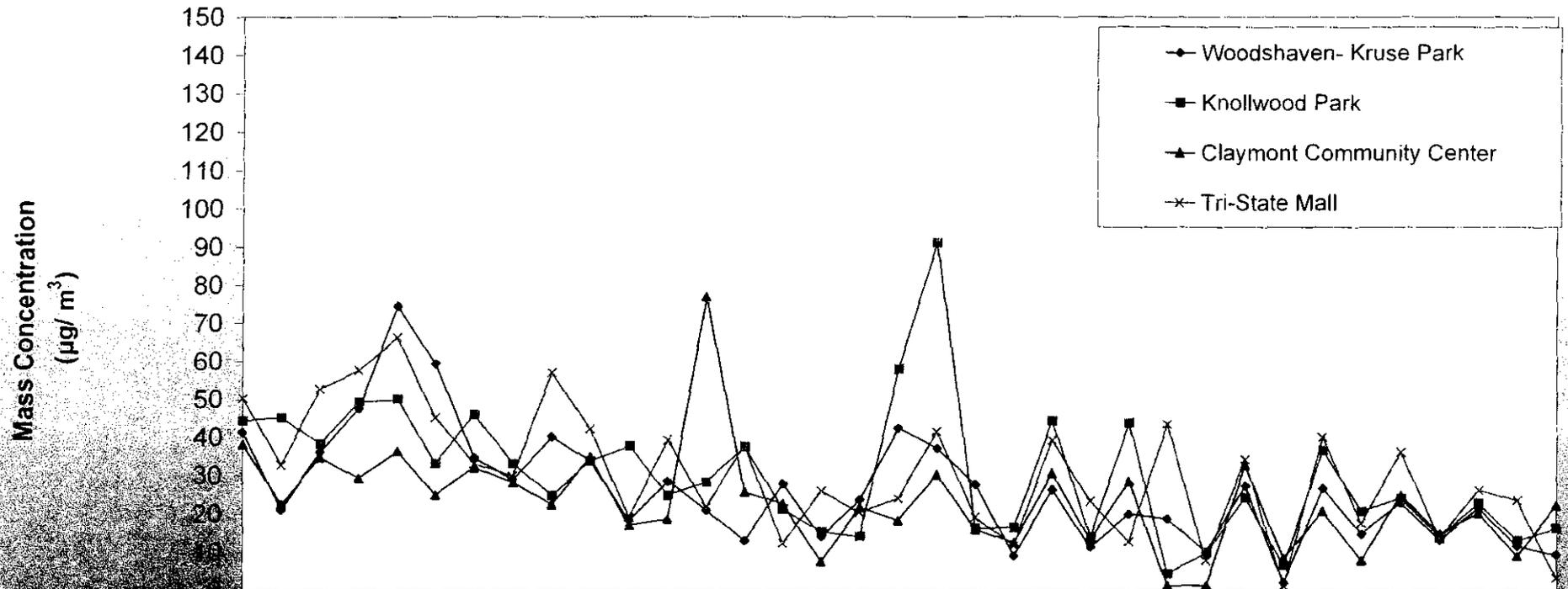
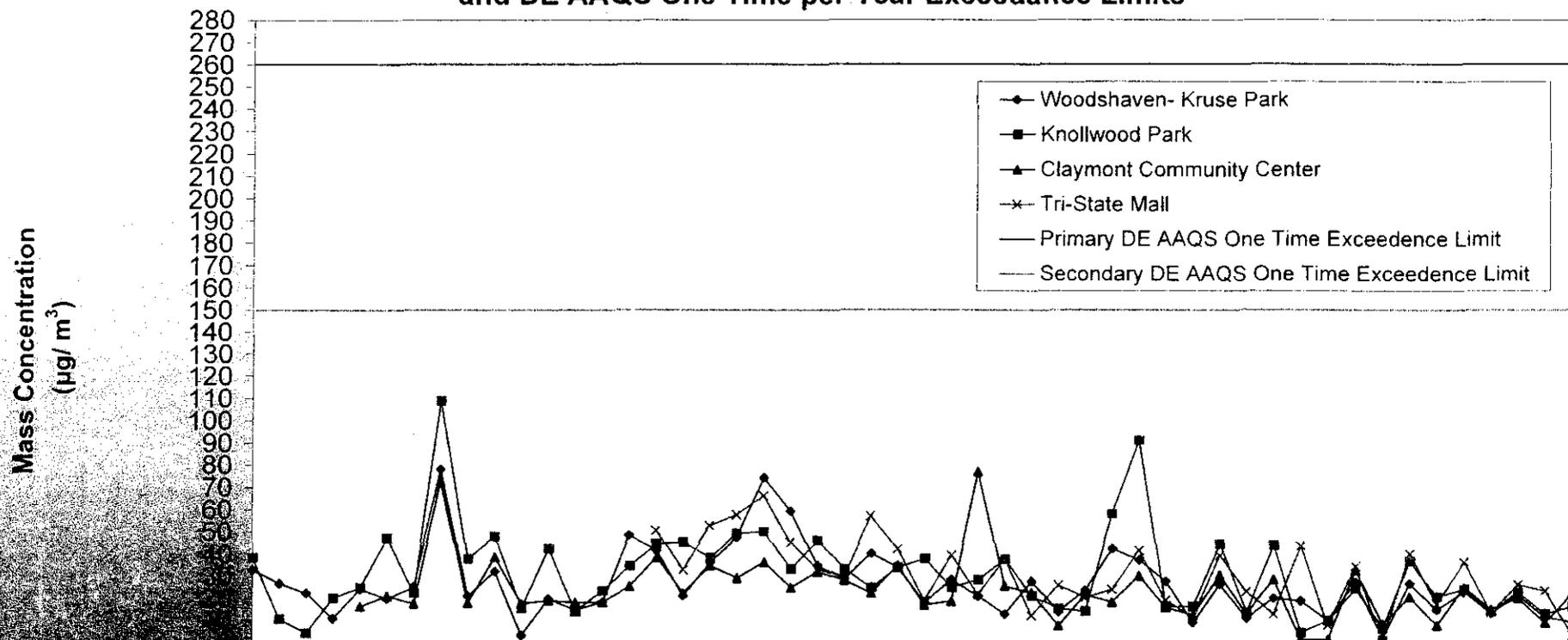


Figure 2. Evraz Claymont Steel AAMP Data and DE AAQS One Time per Year Exceedance Limits



JUNE 2008 AMBIENT AIR MONITORING REPORT

Ambient air sampling of total suspended particulates continued in June at three monitoring locations and began at a fourth location, the Tri-State Mall. Samples are collected over a twenty four hour period on a six day cyclic schedule. The fourth monitor began sampling in conjunction with the cycle of the other monitors.

The 24-hour average concentration for all monitoring stations for June 2008 was $39.5 \mu\text{g}/\text{m}^3$. The 24-hour average concentration for each individual monitoring station was: Claymont Community Center $30.1 \mu\text{g}/\text{m}^3$, Woodshaven- Kruse Park $38.9 \mu\text{g}/\text{m}^3$, Knollwood Park $42.3 \mu\text{g}/\text{m}^3$, and Tri-State Mall $48.4 \mu\text{g}/\text{m}^3$. Table C.1 details the raw data collected at each monitoring station and Figure C.1 depicts a graphical representation of cumulative total suspended particulate levels.

Table C.1 Total Suspended Particulate Levels
June 2008 Raw Data ($\mu\text{g}/\text{m}^3$)

Date Sampled	Claymont Community Center	Woodshaven- Kruse Park	Knollwood Park	Tri-State Liquors
6/3/2008	25.5	48.3	34.5	***
6/9/2008	38.3	41.4	44.4	50.4
6/15/2008	22.5	21.1	45.2	32.8
6/21/2008	34.7	36.2	38.3	52.7
6/27/2008	29.3	47.5	49.3	57.6

***Monitor installed, awaiting power connection by DELMARVA

Figure C.1 Cumulative Total Suspended Particulate Levels

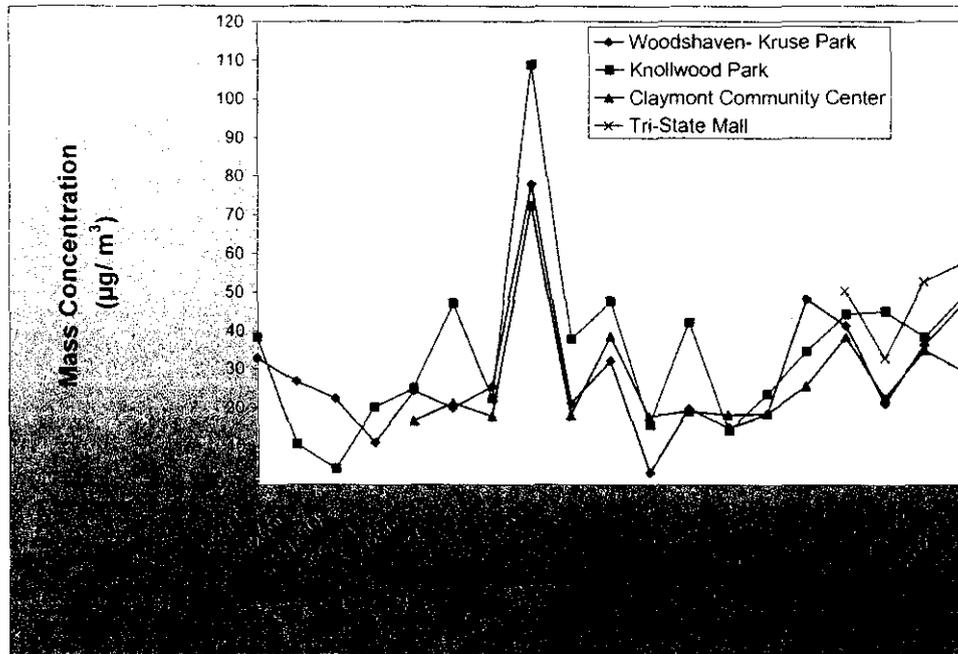


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**Table 1. Ambient Air Monitoring Program
Station Data**

	Location/ Sampler ID			
	Claymont Community Center	Woodshaven- Kruse Park	Knollwood Park	Tri-State Mall
Date Sampled	Sampler ID 20932	Sampler ID 20933	Sampler ID 20934	Sampler ID 20936
3/11/2008		32.8	38.3	
3/17/2008		26.8	10.6	
3/23/2008			4.2	
3/29/2008		11.0	20.2	
4/4/2008	16.5	24.3	25.1	
4/10/2008	21.2	20.0	47.2	
4/16/2008	17.7	25.4	22.3	
4/22/2008	72.7	78.0	109	
4/28/2008	17.9	21.1	37.8	
5/4/2008	38.6	32.1	47.8	
5/10/2008	17.6	3.19	15.6	
5/16/2008	19.0	19.7	42.3	
5/22/2008	18.1	14.8	14.1	
5/28/2008	18.4	18.3	23.5	
6/3/2008	25.5	48.3	34.5	
6/9/2008	38.3	41.4	44.4	50.4
6/15/2008	22.5	21.1	45.2	32.8
6/21/2008	34.7	36.2	38.3	52.7
6/27/2008	29.3	47.5	49.3	57.6
	Pump ran for 84 hrs due to pwr surge			