

## Appendix

Work Practice Plan for the Control of Fugitive Dust Emissions  
From Roadways and Parking Areas at the Wheeling-Pittsburgh Steel Corporation,  
Steubenville and Mingo Junction Facilities

## A. Allowable Emission Rates

1. Total combined emissions of particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers ("PM<sub>10</sub>") from unpaved roads, parking lots, laydown, entrance, unloading areas and berms, and irregular paved surfaces, and from paved roads, which are located at the Steubenville facility and are identified in Sections B and C of this Appendix, shall not exceed ~~1.35~~1.72 pounds per hour.
2. Total combined emissions of PM<sub>10</sub> from unpaved roads, parking lots, laydown, entrance, unloading areas and berms, and irregular paved surfaces, and from paved roads, which are located at the Mingo Junction facility and are identified in Sections B and C of this Appendix, shall not exceed ~~4.91~~7.67 pounds per hour.
3. Compliance with the emission limitations specified in Section A.1. and A.2. of this Appendix shall be determined by the methodology set forth in the U.S. Environmental Protection Agency reference document Control of Open Fugitive Dust Sources (EPA-450/3-88-008), Sections 2.0 and 3.0, and using the dust control plans identified in Sections B and C of this Appendix.

## B. Unpaved Roads, Parking Lots, Laydown, Entrance, Unloading Areas and Berms, and Irregular Paved Surfaces—Chemical Suppression

1. The Company shall employ dust control measures on all unpaved surfaces, and irregular paved surfaces that cannot be adequately cleaned under the provisions of Section C of this Appendix, identified in this Section and in accordance with the following:
  - a. All unpaved surfaces and irregular paved surfaces identified in Attachment 1 (map) shall be treated in accordance with the schedule in Attachment 1, following the initial establishment of chemical ground inventory, with a chemical dust suppressant (petroleum resin emulsions, asphalt emulsions or acrylic cements) on a year-round (twelve-month) basis, except as provided under Sections B.1.e., B.1.f. and D below. The dust suppressant application intensity and frequency during the first two months of this program shall be sufficient to achieve the ground inventory specified in Section B.1.d. by the end of the two-month period.
  - b. Tri-weekly, monthly and quarterly applications shall be accomplished before the end of the first full week of the tri-week/month/quarter except as provided under Sections B.1.e., B.1.f. and D below.

- c. For each dust suppressant application during the initial two-month period of the dust control program, the concentrated dust suppressant shall be diluted at a ratio of not more than five (5) parts water to one (1) part concentrate and the resulting solution shall be applied at a minimum rate of 1.0 gallon per square yard of unpaved or irregular paved surface. The dust suppressant shall be applied at sufficient intervals and intensities after the initial two-month period as to maintain the ground inventory. Except as provided in Sections B.1.f. and D below, the continuing program shall provide for the application of dust suppressant specified in Attachment 1 diluted by no more than seven (7) parts water to one part chemical and applied at a rate of not less than 0.5 gallon per square yard of unpaved or irregular paved surface.
  - d. A minimum ground inventory of 0.25 gallon of concentrate per square yard of road surface, as specified in Section 3.0 of the USEPA reference document Control of Open Fugitive Dust Sources (EPA-450/3-88-008) shall be maintained.
  - e. Applications of dust suppressant may be delayed by not more than three (3) days for any scheduled date upon which the unpaved or irregular paved surface is snow and/or ice covered or has experienced > 0.25 inch of rainfall.
  - f. In the event of persistent adverse weather conditions such as snow and/or ice cover or excessive rainfall, the Company may petition the Director or his representative verbally with written confirmation within three (3) days for extended exemptions which may be granted as deemed appropriate by the Director or his representative.
  - g. Applications of chemical dust suppressant for the second year (after establishment of the ground inventory specified in Section B.1.d.) and beyond may follow the revised schedule, application intensities, and application concentrations shown in Table 11 of Attachment 1.
2. Compliance with Section B.1. shall be determined in accordance with procedures set forth in this Appendix.
  3. Control Equipment

The Company shall ensure the availability, required scheduling, and proper maintenance of spray trucks that are designed and equipped, at minimum, with a 2,000 gallon capacity tank, a spray bar system capable of applying the dust suppressant solution at a coverage rate of at least 1.3 gallons per square yard of surface, a certified flow metering device calibrated in units of gallons per minute, and an apparatus that will facilitate manual applications of the solution to areas not readily accessible by the spray truck.

#### 4. Recordkeeping and Reporting

- a. The Company shall maintain records relative to the program to control emissions from unpaved roads, parking lots, laydown, entrance, unloading areas and berms, and irregular paved surfaces identified in Attachment 1. These records shall include, at a minimum, the following information:
  - i. Control equipment maintenance records.
  - ii. Scheduled and unscheduled equipment malfunctions and downtime.
  - iii. Meteorological log to include average daily temperature, daily precipitation and unusual meteorological occurrences.
  - iv. The date, type and quantity received for each delivery of chemical dust suppressant.
  - v. For each dust suppressant application date and for each unpaved road, area, or berm, or irregular paved surface identified in Attachment 1, start and stop times, average truck speed, number of passes, amount of solution applied, and the dilution ratio of the solution.
  - vi. Identification of areas where manual spraying was utilized.
- b. These records shall be retained by the Company for five (5) years and shall be made available to the Director or his representative upon request.
- c. A calendar quarterly report shall be submitted to the Director or his representative. The report shall contain the information cited above and a description of any deviations from the control program and the reasons for such deviations. The report shall be certified to be accurate by management and shall be submitted within fifteen (15) days after the end of the quarter.
- d. The Company shall notify the Director or his representative, in writing, of any noncompliance with Section B of this Appendix. Such notice shall be submitted within five (5) days of the non-compliance occurrence and shall include a detailed explanation of the cause of such noncompliance, all remedial actions required, and the date by which compliance was or will be reestablished.
- e. The Company shall submit to the Director or his representative an annual report which demonstrates compliance with the  $PM_{10}$  emission rates specified in Sections A.1. and A.2. of this Appendix for the unpaved surfaces, and the irregular paved surfaces that cannot be adequately cleaned under the provisions of Section B of this Appendix, at the Mingo Junction and Steubenville facilities. The  $PM_{10}$  emission rate for each individual network segment identified in Attachment 1 shall be reported along with the total  $PM_{10}$  emission rate for each facility. The  $PM_{10}$  emission rates shall be calculated using the methodology specified in Section A.3. of this Appendix and shall reflect the road network as it exists at the

end of each calendar year. Each annual report shall be submitted by no later than January 31 of the succeeding year.

5. The Company shall implement the dust control measures of Section B no later than the effective date of this rule.

### C. Paved Roads–Vacuum Sweeping

1. The Company shall employ dust control measures on all paved roads identified in this Section and in accordance with the following:
  - a. All paved roads identified in Attachment 1 (map) of this Appendix shall be cleaned via vacuum sweeping on a daily, year-round (twelve-month) basis except as provided under Sections C.1.a.i., C.1.a.ii., and D below.
    - i. Daily sweeping may be suspended only when there is snow, ice cover, or standing water on the surface. All such suspensions shall be reported and verified as required under Section C.4. (Recordkeeping and Reporting).
    - ii. Irregular paved surfaces that cannot feasibly or adequately be cleaned by vacuum sweeping shall be chemically sprayed in accordance with provisions of Section B.
2. Compliance with Section C.1. shall be determined in accordance with procedures set forth in this Appendix.
3. Control Equipment
  - a. The Company shall ensure the availability, required scheduling, and proper maintenance of vacuum sweeping trucks. The collection hopper of the vacuum truck shall be designed and maintained so as to prevent fugitive dust emissions.
  - b. Material collected by the vacuum sweeping truck shall be handled and disposed of in a manner that minimizes fugitive dust emissions, including but not limited to, wet dumping and chemical treatment or stabilization of stored material.
4. Recordkeeping and Reporting
  - a. The Company shall maintain daily records for the paved road cleaning program. These records shall include, at a minimum, the following information:
    - i. Control equipment maintenance records.
    - ii. Scheduled and unscheduled equipment malfunctions and downtime.
    - iii. Meteorological log to include average daily temperature, daily precipitation and unusual meteorological occurrence.
    - iv. Qualitative description of the road surface conditions.

- v. Start and stop time, average truck speed, number of passes for each paved road identified in Attachment 1.
  - vi. Identification of areas where chemical treatment was utilized.
  - vii. Qualitative descriptions of areas of unusually high silt loadings from spills and track-ons.
  - viii. Total amount of dust collected by vacuum trucks in pounds or tons.
- b. These records shall be retained by the Company for five (5) years and shall be made available to the Director or his representative upon request.
  - c. A calendar quarterly report shall be submitted to the Director or his representative. The report shall contain all of the information cited above and a description of any deviation from the control program and the reasons for such deviation. The report shall be certified to be accurate by Company management and shall be submitted within fifteen (15) days after the end of the quarter.
  - d. The Company shall notify the Director or his representative, in writing, of any non-compliance with Section C of this Appendix. Such notice shall be submitted within five (5) days of the non-compliance occurrence and shall include a detailed explanation of the cause of such non-compliance, all remedial actions required and the date by which compliance was or will be reestablished.
  - e. The Company shall submit to the Director or his representative an annual report which demonstrates compliance with the PM<sub>10</sub> emission rates specified in Sections A.1. and A.2., of this Appendix for the paved roads (excluding irregular paved surfaces that cannot be adequately cleaned under the provisions of Section C of this Appendix) at the Mingo Junction and Steubenville facilities. The PM<sub>10</sub> emission rate for each individual network segment identified in Attachment 1 shall be reported along with the total PM<sub>10</sub> emission rate for each facility. The PM<sub>10</sub> emission rates shall be calculated using the methodology specified in Section A.3. of this Appendix and shall reflect the road network as it exists at the end of each calendar year. Each annual report shall be submitted by no later than January 31 of the succeeding year.
5. The Company shall implement the dust control measures of Section C no later than the effective date of this rule.

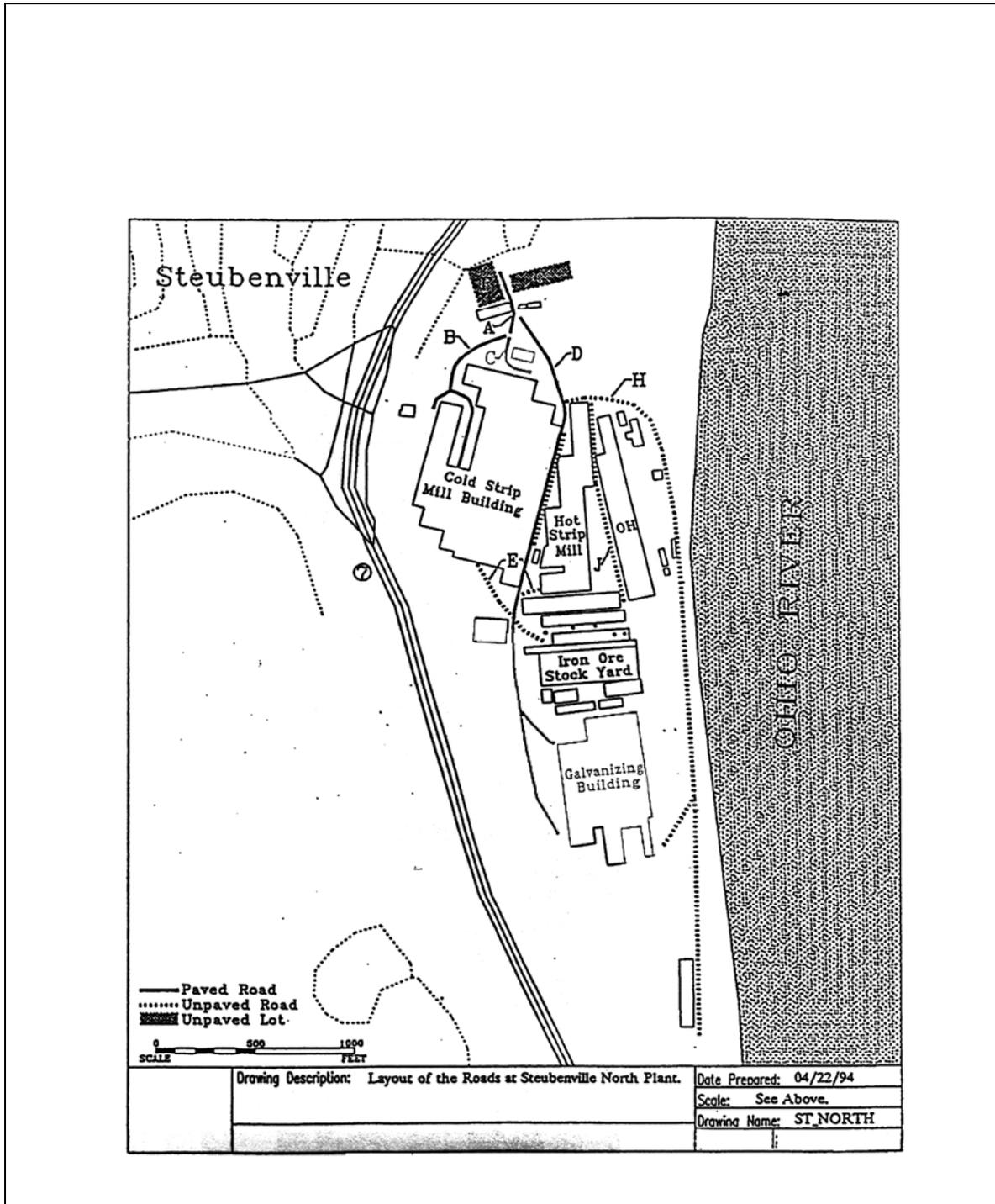
#### D. Changes to Paved and Unpaved Road/Area Dust Control Programs

- 1. The Company has the right to petition the Ohio EPA for written approval of definitive treatment methods, treatment schedules and procedures or reporting requirements different from those required herein. No action shall be taken by the Company in employing the alternative practices until the Director or his representative issues a written approval to the Company. Such alternative practices must be demonstrated to the Director or his representative to result in equivalent dust control effectiveness in

accordance with Control of Open Fugitive Dust Sources (EPA-450/3-88-008). The Company reserves the right to contest any disapproval of such petition in the appropriate judicial forum.

2. In the event that the Company certifies that all of a roadway or area identified in Attachment 1 has been discontinued, the dust suppression or surface cleaning program for that road or area may be terminated or reduced. If the Company begins to utilize any new roadway, parking lot or other vehicular activity area not shown in Attachment 1, it shall notify the Director or his representative in the reports required under this Appendix and treat or clean the road or area in accordance with the procedures contained herein, unless more stringent requirements are specified in any permit to install issued by the Ohio EPA for such roadway or area.
3. The Director or his representative shall not be precluded from requesting adjustments, including increased chemical suppressant application or cleaning, if on-site inspections reveal that the program contained herein does not prevent excessive visible dust entrainment and emissions from a particular road or area.
4. In the event that an unpaved road or area that has been chemically treated becomes completely hardened and cemented by such treatment so as to become like a paved road as demonstrated by observation, by compaction tests and silt analyses, or in the event that the Company paves any unpaved road or area, that road or area may be treated as a paved surface and cleaned in accordance with the procedures outlined in Section C.

Figure 1: Drawing Description: Layout of the Roads at Steubenville North Plant



## Attachment 1 Continued

## Tables 1 and 2

## Wheeling Pittsburgh Steel Corporation, Steubenville

## Paved Roads

Road Section	Length (feet)	Width (feet)	Area (sq. yds)	Description
A	350	16	622	Entrance Road
B	1088	16	1934	Cold Strip Mill Road
C	250	16	444	Cold Strip Mill Entrance Road
D	3250	16	5778	Plant Center Road–Wide berms at indicated places

## Unpaved Roads, Areas and Wide Berms

Road Section	Length (feet)	Width (feet)	Area (sq. yds)	Description
D	1584	8	1408	Plant Center Road–Wide berms at indicated places
E	288	16	512	Small Unpaved Roads from Center Road
F	215	140	3344	West Parking Lot
G	315	95	3325	East Parking Lot
H	5280	30	17600	Open Hearth–Hot Strip Mill Road
J	1056	30	3520	Strip Mill Road–Two 15' Lanes

## Attachment 1 Continued

Table 3: Initial Application of Chemical Dust Suppressant at the Wheeling-Pittsburgh Steel Corporation Steubenville North Facility

Wheeling Pittsburgh Steel Corporation, Steubenville  
Dust Suppressant Initial Application

Mixture = 1 part Chemical  
5 part Water

Application Intensity = 1 gal./yd.\*\*2

Road Section	Area (sq.yds.)	Chemical (gal./appl.)	Mixture (gal./appl.)	Application Frequency	Initial Application (gal.)	
					Chemical	Mixture
D	1,408	235	1,408	1	235	1,408
E	512	85	512	3	256	1,536
F	3,344	557	3,344	2	1,115	6,688
G	3,325	554	3,325	2	1,108	6,650
H	17,600	2,933	17,600	2	5,867	35,200
J	3,520	587	3,520	2	1,173	7,040
Total gal./application =		4,952	29,709	gal/initial ap	9,754	58,522

## Attachment 1 Continued

Table 4: Follow-up Applications of Chemical Dust Suppressant at the Wheeling-Pittsburgh Steel Corporation Steubenville North Facility Based on a 52 Week/Year Season

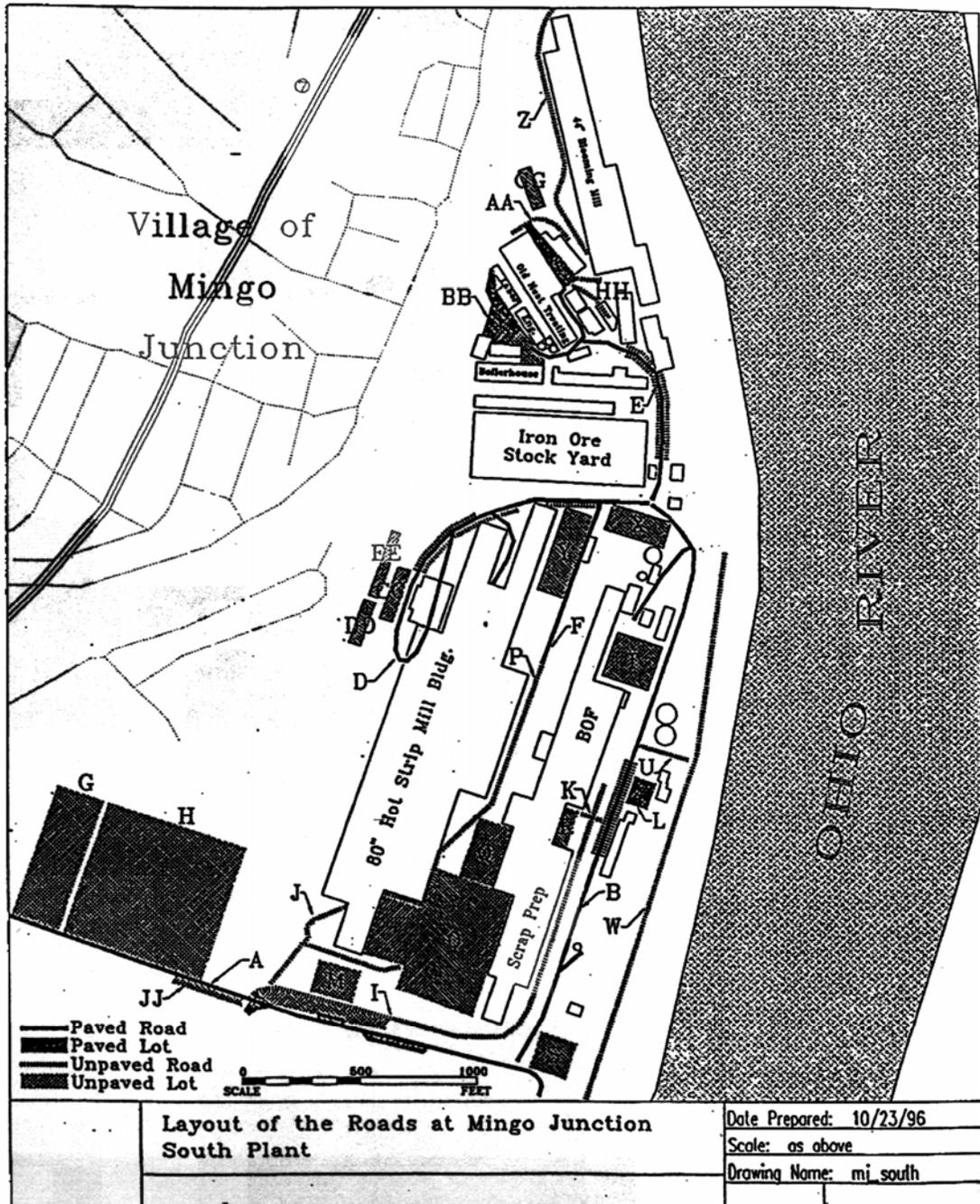
Mixture = 1 part Chemical  
7 part Water

Application Intensity= 0.5 gal./yd. \*\*2

Road Section	Area (sq.yds.)	Chemical (gal./appl.)	Mixture (gal./appl.)	Application Frequency	Yearly Totals (gal.)	
					Chemical	Mixture
D	1,408	88	704	4 /yr.-Quarterly application	352	2,816
E	512	32	256	17 /yr.-Tri-weekly application	544	4,352
F	3,344	209	1,672	12 /yr.-Monthly application	2,508	20,064
G	3,325	208	1,663	12 /yr.-Monthly application	2,494	19,950
H	17,600	1,100	8,800	12 /yr.-Monthly application	13,200	105,600
J	3,520	220	1,760	12 /yr.-Monthly application	2,640	21,120
Total gal./application 0		1857	14855	Total gal./yr. =	21,738	173,902

Attachment 1 Continued

Figure 2: Layout of the Roads at Mingo Junction South Plant



## Attachment 1 Continued

Tables 5 and 6: Wheeling Pittsburgh Steel Corporation, Mingo Junction  
Mingo Junction South Plant Roads

## Paved Roads

Road Section	Length (feet)	Width (feet)	Area (sq. yds)	Description
A	2,700	25	7,500	Entrance Road
B	1,165	16	2,071	BOF–Scrap Handling Road
D	1,800	16	3,200	80" Hot Strip Mill Road
E	900	16	1,600	Blast Furnace–Labor Office Road
F	375	16	667	Center Road Section
BB	600	16	1,067	Office Road
HH	700	15	1,167	Fork Truck Road, paved section

## Unpaved Roads, Areas and Wide Berms

Road Section	Length (feet)	Width (feet)	Area (sq. yds)	Description
B	980	6	653	Scrap Handling Road Berms
D	1,650	6	1,100	80" Hot Strip Mill Road Wide Berms
E	590	8	524	BF–Labor Ofc. Road Berms
G	600	200	13,333	Truck Turnaround Area
H	650	600	43,333	Main Parking Lot
I	2,630	40	11,689	Slag Haul Road & Berms
J	513	30	1,710	Strip Mill Road
K	80	20	178	Caster Access Road
M	138	180	2,760	Strip Mill Area
O	2,340	12	3,120	Slab Laydown
P	1,614	12	2,152	Middle Road
Q	175	75	1,458	Lab Parking
R	170	60	1,133	BOF 4 Parking
S	160	160	2,844	IMS Corner
T	200	200	4,444	Lime Area
U	225	15	375	Short Road
W	2,700	12	3,600	River Road
X	260	115	3,322	Used Machine Parts Storage Yard
Y	380	120	5,067	Cooling Tower Area
Z	1,070	20	2,378	44" Blooming Mill Road
AA	200	20	444	Old Heat Treat Road
CC	240	55	1,467	Coil Storage Yard
DD	200	50	1,111	State Street Parking Lot 1
EE	300	40	1,333	State Street Parking Lot 2
GG	185	55	1,131	44" Blooming Mill Storage Yard
HH	275	15	458	Fork Truck Road, Unpaved Section
JJ	300	30	1,000	Visitors' Parking Area

## Attachment 1 Continued

Table 7: Initial Application of Chemical Dust Suppressant at the Wheeling-Pittsburg Steel Corporation Mingo Junction Facility

Mixture = 1 part Chemical  
5 part Water

Application Intensity= 1 gal./yd.\*\*2

Road Section	Area (sq.yds.)	Chemical (gal./appl.)	Mixture (gal./appl.)	Application Frequency	Initial Application (gal.)	
					Chemical	Mixture
B	653	109	653	1	109	653
D	1,100	183	1,100	1	183	1,100
E	524	87	524	1	87	524
G	13,333	2,222	13,333	1	2,222	13,333
H	9,285	1,547	9,285	3	4,642	27,855
I*	11,689	1,948	11,689	2	3,896	23,378
J	2,338	390	2,338	3	1,169	7,015
K	178	30	178	2	59	356
M	2,760	460	2,760	1	460	2,760
O	3,120	520	3,120	1	520	3,120
P	1,818	303	1,818	1	303	1,818
Q	1,458	243	1,458	2	486	2,917
R	1,133	189	1,133	2	378	2,267
S	2,844	474	2,844	3	1,422	8,533
T	4,444	741	4,444	3	2,222	13,333
U	375	63	375	3	188	1,125
W	3,600	600	3,600	3	1,800	10,800
X	3,322	554	3,322	1	554	3,322
Y	5,067	844	5,067	1	844	5,067
Z	2,378	396	2,378	3	1,189	7,133
AA	444	74	444	3	222	1,333
CC	1,467	244	1,467	1	244	1,467
DD	1,111	185	1,111	2	370	2,222
EE	1,333	222	1,333	2	444	2,667
GG	1,131	188	1,131	1	188	1,131
HH	458	76	458	3	229	1,375
JJ	1,000	167	1,000	2	333	2,000
Total gal./application		12,952	77,712	gal/initial appl	24,658	147,950

\* This road is treated as a paved road supplemented with chemical dust suppressant.

## Attachment 1 Continued

Table 8: Follow-up Application of Chemical Dust Suppressant at the Wheeling-Pittsburgh Steel Corporation Mingo Junction Facility  
Based on 52 Week/Year Season During Initial Year

Mixture = 1 part Chemical  
7 part Water

Application Intensity= 0.5 gal./yd. \*\*2

Road Section	Area (sq.yds.)	Chemical (gal./appl.)	Mixture (gal./appl.)	Application Frequency	Yearly Totals (gal.)	
					Chemical	Mixture
B	653	41	327	4 /yr.–Quarterly application	163	1,307
D	1,100	69	550	4 /yr.–Quarterly application	275	2,200
E	524	33	262	4 /yr.–Quarterly application	131	1,049
G	13,333	833	6,667	4 /yr.–Quarterly application	3,333	26,667
H	9,285	580	4,642	4 /yr.–Quarterly application	2,321	18,570
I*	11,689	731	5,844	4 /yr.–Quarterly application	2,922	23,378
J	2,338	146	1,169	15 /yr.–24 day application	2,192	17,538
K	178	11	89	15 /yr.–24 day application	167	1,333
M	2,760	173	1,380	15 /yr.–24 day application	2,588	20,700
O	3,120	195	1,560	15 /yr.–24 day application	2,925	23,400
P	1,818	114	909	15 /yr.–24 day application	1,704	13,632
Q	1,458	91	729	4 /yr.–Quarterly application	365	2,917
R	1,133	71	567	4 /yr.–Quarterly application	283	2,267
S	2,844	178	1,422	15 /yr.–24 day application	2,667	21,333
T	4,444	278	2,222	15 /yr.–24 day application	4,167	33,333
U	375	23	188	12 /yr.–Monthly application	281	2,250
W	3,600	225	1,800	12 /yr.–Monthly application	2,700	21,600
X	3,322	208	1,661	4 /yr.–Quarterly application	831	6,644
Y	5,067	317	2,533	4 /yr.–Quarterly application	1,267	10,133
Z	2,378	149	1,189	15 /yr.–24 day application	2,229	17,833
AA	444	28	222	12 /yr.–Monthly application	333	2,667
CC	1,467	92	733	4 /yr.–Quarterly application	367	2,933
DD	1,111	69	556	4 /yr.–Quarterly application	278	2,222
EE	1,333	83	667	12 /yr.–Monthly application	1,000	8,000
GG	1,131	71	565	12 /yr.–Monthly application	848	6,783
HH	458	29	229	4 /yr.–Quarterly application	115	917
JJ	1,000	63	500	15 /yr.–24 day application	938	7,500
Total gal./application=		4,898	39,183	Total gal./yr. =	37,388	299,106

\* This road is treated as a paved road supplemented with chemical dust suppressant.

## Attachment 1 Continued

Table 9 and 10: Control Efficiencies for On-going Control Programs

Control Efficiencies for Monthly Applications				
Averaging Period	Application Concentration	Ground Inventory (gal/yd <sup>2</sup> chemical) at start of period	1-Month Average Control Efficiency from EPA-450/3-88-008 Figure 3-4 (%)	Running Average Control Efficiency (%)
Jan 1–Feb 1	1.00 gal/yd <sup>2</sup> of 1:6 solution	0.143	78	78
Feb 1–Mar 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.181	84	81
Mar 1–Apr 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.220	89	84
Apr 1–May 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.258	90	85
May 1–Jun 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.297	90	86
Jun 1–Jul 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.335	90	87
Jul 1–Aug 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.374	90	87
Aug 1–Sep 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.412	90	88
Sep 1–Oct 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.451	90	88
Oct 1–Nov 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.489	90	88
Nov 1–Dec 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.527	90	88
Dec 1–Jan 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.566	90	89

Control Efficiencies for Bimonthly Applications				
Averaging Period	Application Concentration	Ground Inventory (gal/yd <sup>2</sup> chemical) at start of period	2-Month Average Control Efficiency from EPA-450/3-88-008 & MECH@X@Y (%)	Running Average Control Efficiency (%)
Jan 1–Mar 1	1.00 gal/yd <sup>2</sup> of 1:6 solution	0.143	58	58
Mar 1–May 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.181	62	60
May 1–Jul 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.220	67	62
Jul 1–Sep 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.258	67	64
Sep 1–Nov 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.297	67	64
Nov 1–Jan 1	0.50 gal/yd <sup>2</sup> of 1: 12 solution	0.335	67	65

