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WEST VIRGINIA
AIR POLLUTION CONTROL COMMISSION
1558 Washington Street, East
CHARLESTON, WEST VIRGINIA 25311
TELEPHONE: 348-2275 OR 348-3286

WEST VIRGINIA AIR POLLUTION
CONTROL COMMISSION
1558 Washington Street, East
Charleston, West Virginia 25311

v.

NATIONAL STEEL CORPORATION
WEIRTON STEEL DIVISION
Weirton, West Virginia 26062

CONSENT ORDER

Under the authority and direction of West Virginia Code, Chapter 16, Article 20, Section 5(17), which reads in pertinent part as follows:

> (17) Whenever the commission achieves informally, by letter, or otherwise, an agreement with any person that said person will cease and desist in any act resulting in the discharge of pollutants or do any act to reduce or eliminate such discharge, such agreement shall be embodied in a consent order and entered as, and shall have the same effect as, an order entered after a hearing as provided in Section Six (§ 16-20-6) of this article.,

this Consent Order is hereby entered.

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I. FINDINGS OF FACT

1. National Steel Corporation, Weirton Steel Division (hereinafter referred to as the "Company") owns and operates an integrated steel plant in and about Weirton, Hancock County, West Virginia.

2. The Commission, the Company and the United States of America executed a Consent Decree which was entered in the U.S. District Court in Wheeling, West Virginia, on or about July 17, 1981. Said Consent Decree contains emission limitations and compliance schedules for a number of facilities at the Company's Weirton Plant, including the Basic Oxygen Furnace Shop, the Blast Furnace Casthouses and the Sinter Plant.

3. The Company has petitioned the Commission, in accordance with Regulation XIX, for a public hearing pursuant to said regulation, for the purpose of proposing a "Bubble Concept" Design to meet total emission control requirements for particulate matter through a different mix of control technology than that mandated by Regulation VII.

4. The Company is the owner and operator of a source which contains multiple process-related emission facilities and non-process fugitive emission points, all of which are subject to the requirements of Regulation VII.

5. The Company has demonstrated, to the satisfaction of the Commission, that the proposed "Bubble Concept" Design, as stated herein under Article III, requires more emission reduction and has the equivalent environmental impact as the existing individual emission limitations as contained in Regulation VII.

6. Public notice with regard to the Commission's consideration of this Consent Order was given by publication as a Class II Legal Notice in a newspaper of general circulation in Air Quality Region I.

7. A public hearing was held on July 2, 1982. This Consent Order shall be submitted to the US Environmental Protection Agency for inclusion in the State Implementation Plan.

II. CONCLUSIONS OF LAW

1. The Commission is the agency empowered and authorized to regulate and control pollution of the air in the State of West Virginia as set forth in the Code.

2. The Commission has acted in accordance with the Code and Regulation XIX, promulgated thereunder.

3. The Commission has given proper notice and opportunity for public hearing in accordance with the Code, Chapter 16, Article 20, and Chapter 29A.

4. Under the provisions of the Code, this Consent Order shall have the same effect as an order to correct a statutory air pollution entered after a hearing before the Commission as provided in the Code, Chapter 16, Article 20, Section 6.

III. "BUBBLE CONCEPT" DESIGN

1. Implementation of the "Bubble Concept" Design described herein will bring about a reduction in particulate matter emissions of 2659 tons per year whereas implementation of compliance programs at the facilities identified in Paragraph III.2 hereof would bring about a reduction in particulate matter emissions of 1819 tons per year. This net benefit of 840 tons per year resulting from the implementation of the "Bubble Concept" Design is set forth in greater detail in Table 1.

The Company shall implement the following control measures by the dates specified, said measures being in excess of those required under Regulation VII, Section 4.02. The control measures are designed to achieve a reduction of plant particulate emissions described in Table 2, attached hereto and made a part thereof. Spraying as required below, shall be accomplished with a petroleum resin emulsion-type dust suppressant solution ("Coherex" or equivalent) and shall be applied in accordance with recommendations of the manufacturers of the spray equipment and dust suppressant chemicals. Cleaning of paved roads and parking lots, as required below, shall be accomplished by use of vacuum systems or an alternate system demonstrated to the Commission to be equivalent.

A. Detail of Non-Process Fugitive Control Program

1. Brown's Island Coke Plant

(a) By December 31, 1982: - Spray unpaved road segments together with parking lots marked on Figure 1, at the frequency specified in Table 3, both of which are attached hereto and made a part thereof.

(b) By December 31, 1982: - Clean paved road segments marked on Figure 1, at the frequency specified in Table 3.

(c) By December 31, 1982: - Spray unpaved berms of paved roads marked on Figure 1, at the frequency in Table 3.

2. Mainland Coke Plant, Blast Furnaces, Sinter Plant and Tin Mill

(a) By December 31, 1982: - Spray unpaved road segments together with parking lots marked on Figure 2, at the frequency specified in Table 3, both of which are attached hereto and made a part thereof.

(b) By December 31, 1982: - Clean paved road segments marked on Figure 2, at the frequency specified in Table 3.

(c) By December 31, 1982: - Spray unpaved berms of paved roads marked on Figure 2, at the frequency in Table 3.

3. Basic Oxygen Furnace Shop, Blooming Mill and Sheet Mill

(a) By December 31, 1982: - Spray unpaved road segments together with parking lots marked on Figure 3, at the frequency specified in Table 3, both of which are attached hereto and made a part thereof.

(b) By December 31, 1982: - Clean paved road segments and parking lots marked on Figure 3, at the frequency specified in Table 3.

(c) By December 31, 1982: - Spray unpaved berms on paved roads marked on Figure 3, at the frequency in Table 3.

4. Strip Mill

(a) By December 31, 1982: - Spray unpaved road segments together with parking lots marked on Figure 4, at the frequency specified in Table 3, both of which are attached hereto and made a part thereof.

(b) By December 31, 1982: - Clean paved road segments marked on Figure 4, at the frequency specified in Table 3.

(c) By December 31, 1982: - Spray unpaved berms of paved roads marked on Figure 4, at the frequency in Table 3.

B. Control Equipment

1. The Company shall maintain a minimum of one (1) spray truck to implement its unpaved surface control program. The spray truck shall have a minimum capacity of 2000 gallons and shall be capable of applying 0.2 to 1.0 gallons of dust suppressant solution evenly over a square yard of treated area.

2. The Company shall maintain a minimum of two (2) vacuum road sweepers to implement its paved surface control program. The vacuum sweepers shall have a minimum capacity of seven cubic yards each and shall be capable of cleaning dry or wet surfaces.

C. Record Keeping and Reporting

1. The Company shall maintain daily records relative to the road segments and parking lots covered by Paragraph III.1.A. above. Those records shall include, at a minimum, the following information:

   (a) the name of each road segment or parking lot to be treated and/or cleaned;

   (b) the date each road segment or parking lot was treated and/or cleaned;

   (c) the manner in which each road segment or parking lot was treated and/or cleaned;

   (d) the date, type, and quantity received for each delivery of chemical dust suppressants;

   (e) the mix ratio of chemical dust suppressants (Coherex, etc.) to water; and

   (f) the amount of precipitation recorded for each day.

   These records shall be retained for three years and shall be made available to the Director of the Commission, or his representative, at any reasonable time.

2. A calendar quarterly report shall be submitted to the Director of the Commission. This report shall

include a description of any deviation as indicated on the records from the control procedures covered by this Paragraph III.1. and the reason for them.

3. The Company shall include in its calendar quarterly report results of its local ambient air monitoring for total suspended particulate. The TSP monitoring sites shall be mutually agreed upon by the Company and the Director. Ambient air monitoring shall be conducted according to 40 CFR 50, Appendix B.

4. In addition to the calendar quarterly report, the Company shall notify the Commission and US EPA, Region III, in writing, of any non-compliance with Paragraph III.1. above except any such non-compliance caused entirely by adverse weather conditions. Such notice shall be submitted within five (5) days of non-compliance and shall include a detailed explanation of the cause of such non-compliance and methods and procedures for achieving compliance as expeditiously as practicable.

D. The Company shall not be precluded from using an alternate dust suppressant on unpaved areas, in lieu of petroleum resin emulsion ("Coherex" or equivalent), provided that the Company can demonstrate, to the Director that equivalent results are achievable.

E. The Commission and/or US EPA shall not be precluded from requiring changes or adjustments in the non-process fugitive particulate control program outlined in Paragraph III.1.A. Such adjustments could include additional spraying or cleaning of those road segments or parking lots shown by inspection to be inadequately controlled.

2. Upon signing of this Consent Order, the Company shall be permitted to operate its Basic Oxygen Furnace Shop without secondary emissions controls at a rate of 3,400,000 tons of steel per year, its Numbers 1, 2, 3 and 4 Blast Furnaces, without casthouse controls, at a rate of 2,600,000 tons of hot metal per year, its Sinter Plant without controls for the cooler end, at a rate of 1,300,000 tons of sinter per year and its Blooming Mill Scarfer with existing controls only at a rate of 2,000,000 tons of steel per year, upon the condition that the Company complies with all the terms and conditions of Paragraph III.1. above.

3. Upon signing of this Consent Order, the Company shall operate and maintain the existing controls at the Blooming Mill Scarfer in a manner which will provide for all spray nozzles being free of any obstructions and ensure that water at sufficient

pressure is flowing through each spray nozzle. This will reflect the current emission control for the scarfer.

4. Upon signing of this Consent Order, the Company shall operate controls on its Basic Oxygen Furnace Shop oxygen lance openings for both its Number 6 and Number 7 vessels. Such controls shall achieve a ninty (90) percent reduction of particulate emissions from each lancehole. Visible emissions from the basic oxygen furnace roof monitor shall not exceed twenty (20) percent opacity except during the periods of time of scrap charge, hot metal charge, alloy addition, temperature sampling, steel chemistry sampling and slag off/on any vessel.

5. The Company shall measure daily precipitation, using approved standardized methods at a location on or adjacent to the Company property where the items in Paragraph III.1. are being performed.

6. Any other emissions or operations, not specifically addressed herein shall be controlled in conformance with any and all applicable regulations, Code provisions and Consent Decree requirements.

IV. OTHER PROVISIONS

1. For the purpose of this Consent Order and any further enforcement action thereof, the Company hereby waives any and all rights of challenge and defense with respect to the validity of the Code, Regulation VII, Regulation XIX, and this Consent Order.

2. The Company agrees to comply with all requirements of this Consent Order and further agrees to waive any and all rights to appeal of this Consent Order.

3. Nothing contained in this Consent Order shall be interpreted in such a manner as to relieve the Company of the responsibility to make all necessary short-term emissions reductions as provided and required in Regulation IX - "Prevention of Air Pollution Emergency Episodes".

4. The provisions of this Consent Order are severable and should any provisions be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

5. This Consent Order shall become effective immediately upon signing by both parties.

6. The Director and the Company shall undertake to amend the Consent Decree entered in the Federal District Court in Wheeling, West Virginia, to conform with this Consent Order.

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7. This Consent Order shall be, and remain in effect, for a period of three years from the date of entry, and at the end of such three-year period, the Commission shall review this Consent Order, and may either terminate or extend approval based on consideration of air quality, control technology innovation, and such other determination as the Commission deems appropriate within their sole discretion.

8. Violation of this Consent Order may subject the Company to penalties pursuant to Chapter 16, Article 20, Section 8, and the withdrawl of approval of this "Bubble Concept" Design by the Commission.

9. This Consent Order is binding on the Company, its successors and assigns.

AND NOW, this 2 day of July, 1982, the WEST VIRGINIA AIR POLLUTION CONTROL COMMISSION agrees to and enters into this Consent Order.

WEST VIRGINIA AIR POLLUTION
CONTROL COMMISSION

Wm R. Richardson
By Its Chairman

NATIONAL STEEL CORPORATION, WEIRTON STEEL DIVISION, hereby agrees with the provisions and consents to the terms of this Consent Order and agrees to comply with all requirements set forth herein.

AND NOW, this 6th day of July, 1982, NATIONAL STEEL CORPORATION, WEIRTON STEEL DIVISION, by its duly authorized representative, consents to, agrees to and enters into this Consent Order.

NATIONAL STEEL CORPORATION
WEIRTON STEEL DIVISION

Charles S. Slater
Vice President - Operations

By H. G. Redline
Its President - Weirton Steel

TABLE 1

	Tons Per Year
Present Emission Rate - Non-Process Fugitives	3,191
"Bubble Concept" Design Emission Rate - Non-Process Fugitives	532
	2,659
Present Emission Rate - BOF Secondary Emissions	1,020
Emission Rate - BOF Secondary Emissions with Control	213
	807
Present Emission Rate - Blast Furnace Casthouses	780
Emission Rate - Blast Furnace Casthouses with Controls	65
	715
Present Emission Rate - Scarfer	60
Emission Rate - Scarfer with Controls	10
	50
Present Emission Rate - Sinter Plant Cooler End	260
Emission Rate - Sinter Plant Cooler End with Controls	13
	247
Total Reduction at BOF, Blast Furnace Casthouses, Scarfer and Sinter Plant Cooler End with Controls	1,819
NET REDUCTION UNDER "BUBBLE CONCEPT" DESIGN	840

TABLE 2: - NON-TRADITIONAL SOURCE EMISSION REDUCTIONS

Source	Uncontrolled Emission Rate (Lbs/Hour)	Control Efficiency (Percent)	Controlled Emission Rate (Lbs/Hour)
Road A	2.6122	90	0.2612
Road B	38.8619	80	7.7724
Road C	135.8367	80	27.1673
Road D	8.3114	80	1.6623
Road E	2.3016	80	0.4603
Road F	0.9486	80	0.1897
Road G	20.6780	80	4.1356
Road H	129.5994	80	25.9199
Road J	21.5496	80	4.3099
Road K1, 2, 4, 8	16.1400	80	3.2280
Road K3, 5, 6, 7	17.4111	90	1.7411
Road L	51.6739	80	10.3348
Road M1	3.0911	80	0.6182
Road M2-3	44.9321	90	4.4932
Road N	6.1856	80	1.2371
Road 01	3.5084	90	0.3508
Road 02,3	2.6541	80	0.5308
Road P	7.7520	80	1.5504
Road R1,2	2.9207	90	0.2921
Road R (Paved)	3.6823	80	0.7365
Road T	16.5388	90	1.6539
Road V	10.0654	80	2.0131
Road Y	4.2165	80	0.8433
Road AA	2.9018	80	0.5804
Road BB	11.8185	80	2.3637
Road EE	4.9356	80	0.9871
Road KK	0.8267	80	0.1653
Unpaved Lot 1	22.8360	90	2.2836
Unpaved Lot 2	3.1970	90	0.3197
Unpaved Lot 3	3.1970	90	0.3197
Unpaved Lot 5	6.3940	90	0.6394
Unpaved Lot 6	3.1970	90	0.3197
Unpaved Lot 7	4.1100	90	0.4110
Unpaved Lot 8	5.4800	90	0.5480
Unpaved Lot 9	4.1100	90	0.4110
Unpaved Lot 14	25.2360	90	2.5236
Unpaved Lot 15	61.1890	90	6.1189
Unpaved Lot 17	4.8400	90	0.4840
Unpaved Lot 19	1.7450	90	0.1745
Unpaved Lot 20	1.0370	90	0.1037
Unpaved Lot 26	5.9480	90	0.5948
Unpaved Lot 27	2.1210	90	0.2121
Unpaved Lot 28	0.4350	90	0.0435
Paved Lot 12	0.2870	80	0.0574
Paved Lot 13	1.1470	80	0.2294
TOTAL	728.4600 (3191 Tons/Year)		121.3924 (532 Tons/Year)

Total Emission Reduction - 2659 Tons per Year

TABLE 3: - SUMMARY OF NON-PROCESS FUGITIVE CONTROL PROGRAM

Type of Treatment	Area Affected	Frequency
Paved Road Cleaning	Roads B, C, D, E, F, G, H, J, K1, K2, K4, K8, L, M1, N, O, P, R, V, Y, AA, BB, EE, KK	Vacuum sweep five days per week
Paved Parking Lot Cleaning	Paved Lots 12 and 13	Once per week
Spraying Unpaved Parking Lots	Unpaved Lots 1-3, 5-9, 14, 15, 17, 19, 20, 26-28	Monthly
Spraying Unpaved Roads	Roads A, M2, M3, 01, R1, R2, T, K3, K5, K6, K7	Monthly
Spraying Unpaved Berms of Paved Roads	Accessible berms on the paved roads noted above	Quarterly

The Company shall determine within thirty (30) days of the signing of this Order which unpaved berms are unaccessible.

Spraying of unpaved surfaces shall be accomplished the first full week of the month (quarter for unpaved berms). If spraying during first full week is postponed due to weather conditions, spraying shall be accomplished during the second week. Subsequently postponment of spraying during the first two weeks, will require spraying during the third week.

A two-week period must be maintained between spraying periods.

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FIGURE 1: BROWN'S ISLAND COKE PLANT

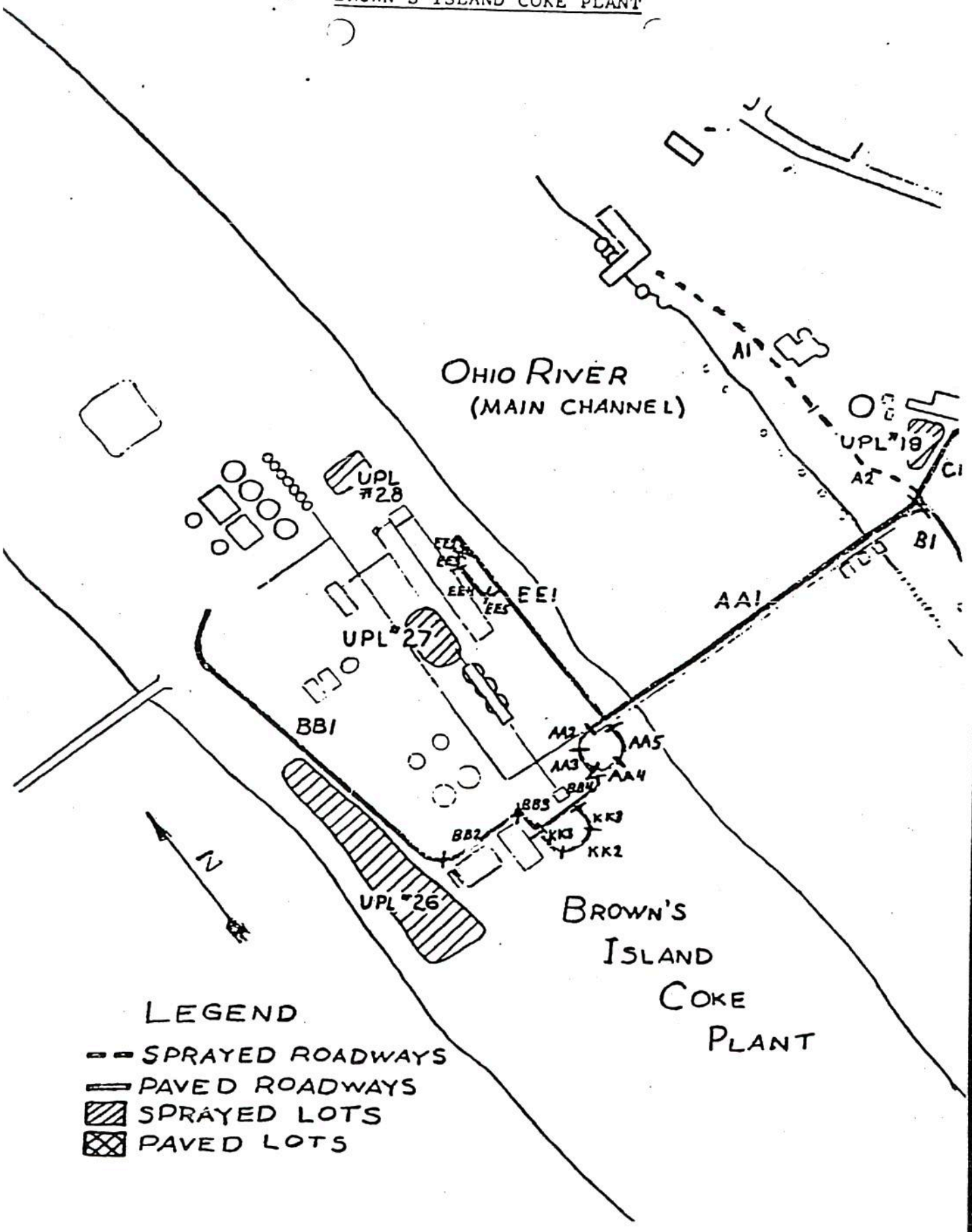

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FIGURE 2: - MAINLAND COKE PLANT, BLAST FURNACE, SINTER PLANT AND TIN MILL

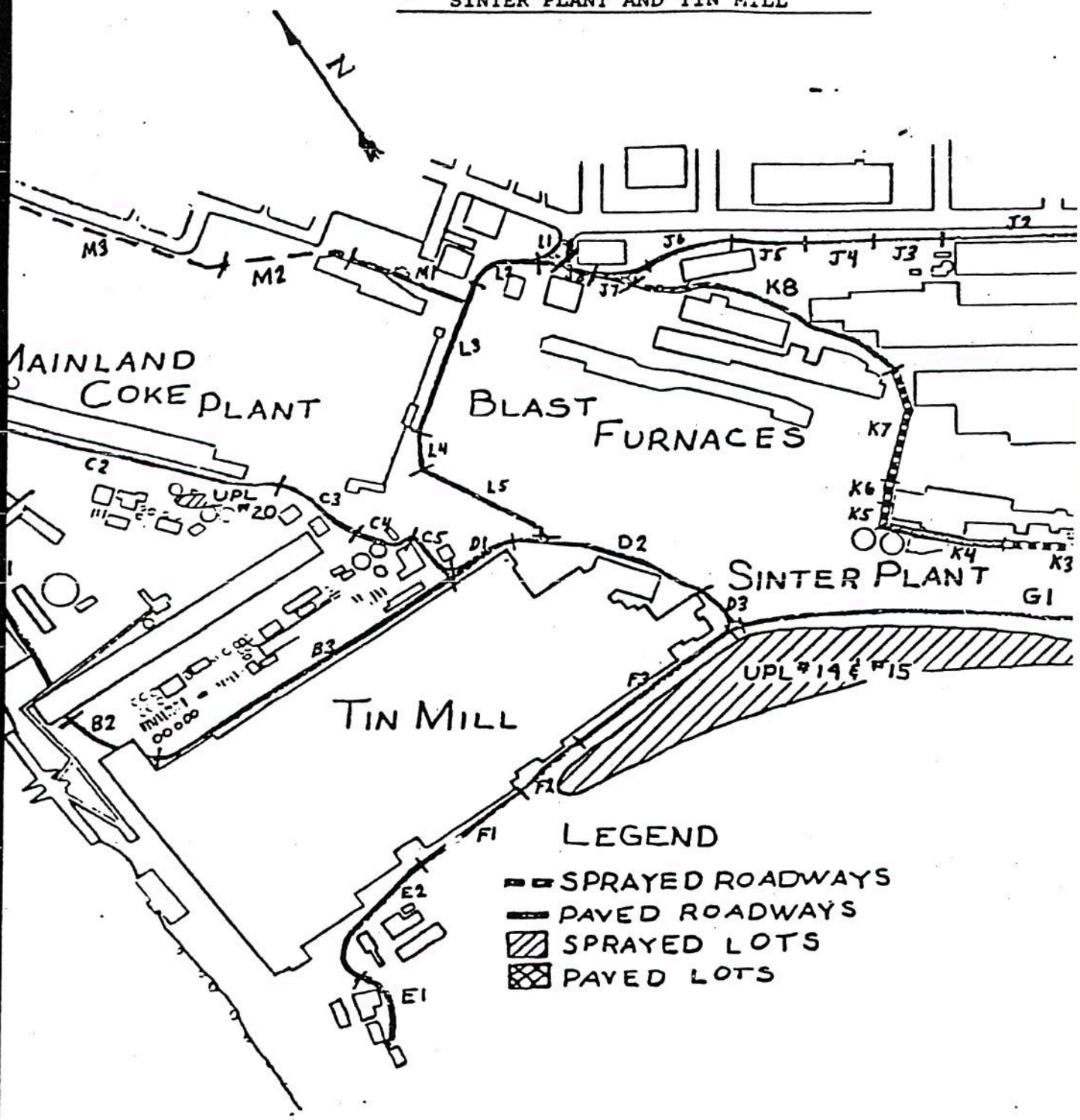

FIGURE 3: - BASIC OXYGEN FURNACE SHOP, BLOOMING MILL AND SHEET MILL

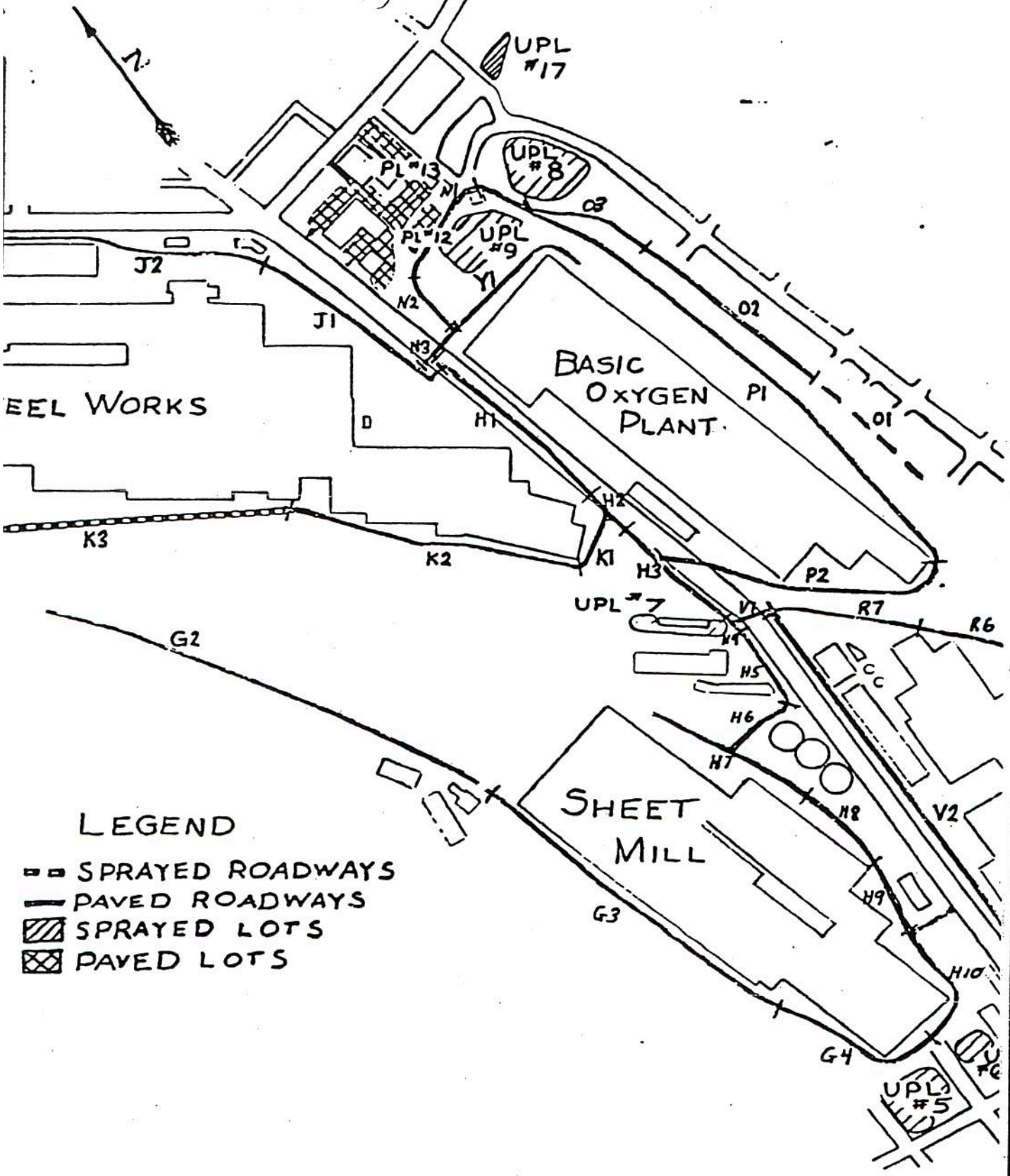

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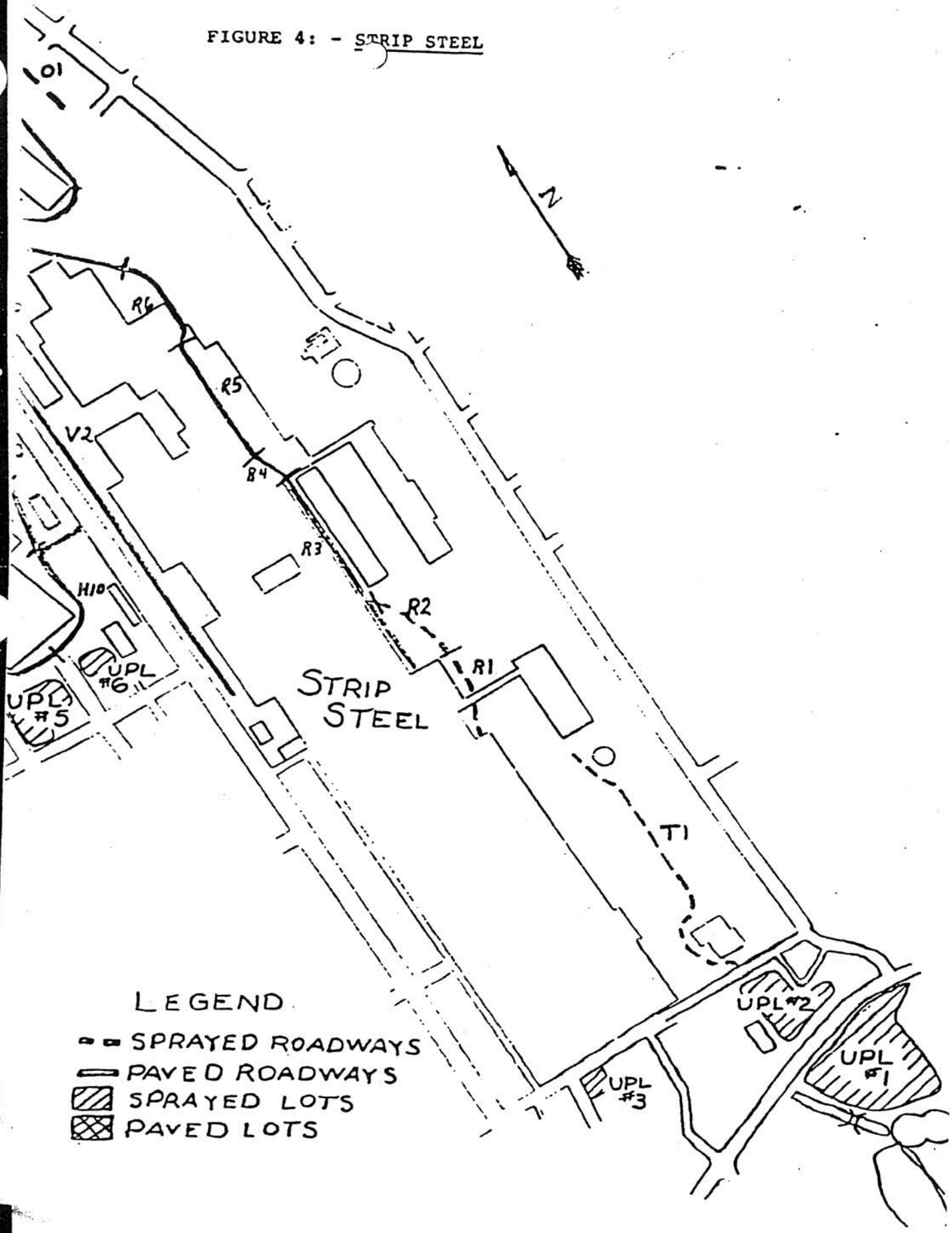
FIGURE 4: - STRIP STEEL



WEST VIRGINIA
AIR POLLUTION CONTROL COMMISSION

AMBIENT AIR MONITORING PROGRAM

Monitoring Locations

The Company shall establish and operate an ambient air quality monitoring network at the following locations:

Designation	Location (UTM Coordinates) East	North
Oak Street	535.570	4474.470
North Weirton	534.830	4474.340
Murphy Avenue	535.570	4473.520
Dunbar School	535.270	4473.280
Weir High School	535.960	4472.700
Millsop Community Center	534.850	4472.130

The air quality monitors as specified at the above listed locations and operated by the Company shall be designated as Special Purpose Monitors (SPM). Data from these monitors will be used to evaluate the impact of emissions from the Weirton Steel facility bubble on the ambient air quality. Data from these SPM's shall not be used to designate the area under Section 107 of the Clean Air Act.

Instrumentation

The Company shall install and operate one high-volume sampler at each location described above, according to 40 CFR Part 50 (Appendix B) for the purpose of monitoring ambient air total suspended particulate (TSP) concentrations. The Company shall collocate a high-volume sampler at one location.

The Company shall install and operate one dichotomous sampler with a Wedding ten micron inlet head at one site to be specified by the Company, for the purpose of measuring ambient air inhalable particulate (IP) concentration.

The Company shall install and operate a meteorological (Met) tower on its Mill Administration Building (MAB) for the purpose of measuring wind speed and direction. The Company shall employ a 540° chart to record wind direction and shall also determine standard deviation of wind direction.

The Company shall install and operate a temperature differential (ΔT) instrument at 10 to 30 meters at a location on its Brown's Island for the purpose of measuring a vertical temperature gradient to determine atmospheric stability.

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Operating Schedule

Monitoring shall commence as soon as possible, but no later than six (6) months from the date of the Consent Order. Monitoring data shall be collected for a period of two (2) years.

All monitoring locations shall be operated on the six-day schedule established by the U.S. Environmental Protection Agency. The Company may employ State ambient air quality data from the Oak Street and Millsop Community Center locations instead of self-monitoring.

Meteorological instruments shall operate continuously except for maintenance periods.

A minimum of ninty (90) percent data shall be captured from each instrument excluding periods of data loss due to reasons beyond the Company's control such as vandalism, power outage, etc.

Quality Assurance

High-volume samplers shall be operated and maintain a quality assurance program consistent with 40 CFR, Part 58 (Appendix B).

The dichotomous sampler shall be operated and maintain quality assurance consistent with the Sierra Instruments' Series 245 Operating Manual. Filter analysis shall be gravimetric on a five-place semi-microbalance.

Wind and ΔT instruments shall be calibrated at the beginning of the sampling period and chart records examined monthly to assure proper performance.

Data Reporting

Data shall be reported quarterly in SAROAD (Storage and Retrieval of Aerometric Data) format in machine-readable form. A summary report shall also be generated quarterly which includes the raw particulate data, a quarterly arithmatic and geometric mean, and the highlighting of daily samples that exceed the primary or secondary NAAQS. Meteorological data shall be reported in machine-readable form.

Report shall be submitted to the U.S. Environmental Protection Agency and the West Virginia Air Pollution Control Commission within six (6) weeks of the end of the quarter during which the data was collected.

At the end of the two-year monitoring period, the Company shall submit, within three (3) months, to the U.S. Environmental Protection Agency and the West Virginia Air Pollution Control

Commission, a report summarizing results of the monitoring program. The report shall describe, in detail, any additional controls needed to meet the primary NAAQS as determined by the monitoring network, unless it can be demonstrated that exceedance of the NAAQS is due to sources other than the Company.

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