

Revised Prioritized List of Source Categories for NSPS Promulgation

by

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Interagency Agreement No. D-7-0 1075

EPA Project Officer: Gary McCutchen

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air, Noise, and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

March 1979

1 BACKGROUND

Section 111(f) of the Clean Air Act¹(CAA) requires that EPA publish a list of major stationary sources of air pollution not already listed under Section 111(b)(1)(A); that is, for which NSPS had not, as of August 7, 1977, been proposed or promulgated. The list was to be promulgated by August 7, 1978, after EPA had provided notice of an opportunity for public hearings and consulted with Governors and State air pollution control agencies. In developing priorities, EPA was to consider (1) the quantity of emissions from each source category, (2) the extent to which each pollutant endangers public health or welfare, and (3) the mobility and competitive nature of each stationary source category, e.g., the capability of a new or existing source to locate in areas with less stringent air pollution control regulations. After the list is promulgated, Governors may submit applications under Section 111(g) to add major source categories to the list, add any source category to the list which may endanger public health or welfare, change the priority ranking, or revise promulgated NSPS.

Argonne National Laboratory (ANL), under contract with EPA, initiated development of this list by compiling information on a large number of source categories from a number of literature resources. This preliminary list was evaluated using the criteria specified in Section 111(f) of the CAA. A draft report describing this analysis was reviewed by the National Air Pollution Control Techniques Advisory Committee on April 6, 1978.

A final report published in April 1978 (see Ref. 2 - *Priorities for NSPS Under the Clean Air Act Amendments of 1977*, EPA-450/3-78-019) describes the methodology used to apply the criteria and provides the resource material used in developing the list.

2 NSPS PRIORITIZATION PROGRAM

The source category data were first analyzed to determine those sources which have the potential to emit 100 tons or more per year of any one pollutant. These major source categories were then subjected to a priority ranking procedure using the three criteria specified in the CAA. The priority ranking procedure used represents an extension of an earlier Argonne procedure³ developed to prioritize NSPS source categories using an extensive industrial data base developed by TRC, Inc.⁴

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In summary, the prioritization procedure first ranks source categories on a pollutant by pollutant basis. This results in nine lists [one for each pollutant -- hydrocarbons (HC), nitrogen oxides (NO_x), particulate matter (PM), sulfur dioxide (SO_2), carbon monoxide (CO), lead (Pb), fluorides (F), acid mist (AM), and hydrogen sulfide (H_2S)] with each list ranked using the criteria in the CAA. In this ranking, first priority is given to quantity of emissions, second priority to potential impact on health and welfare, and third priority to mobility. Thus, sources with the greatest growth rates and emission reduction potential are high on each list; sources with limited choice of location, low growth and small emission potential are low on each list.

The nine lists are combined into one by selecting pollutant goals -- a procedure which, in effect, assigns a relative priority to pollutants based upon the potential impact of NSPS. After the pollutant goals are selected, the final priority list is established through the selection of source categories which will have maximum impact on attaining the selected goals. The effect of this procedure is to emphasize control of organic (hydrocarbon), particulate matter, sulfur dioxide, and NO_x emissions and to give carbon monoxide and noncriteria pollutants a lower priority.

The ranking of source categories on the list and, in fact, the differentiation between major and minor sources is sensitive to the accuracy of the data utilized. The ranking is especially sensitive to emission factors, source sizes, mobility, and source category growth rates. Because the original data base used to establish the priority list was obtained from a number of literature sources and because time was not available to perform an independent verification of these data, it was expected that further study will identify certain inaccuracies in the original data base.

3 REVISED DATA BASE

EPA published the proposed list of major source categories in the Federal Register (see 43 FR 38872, August 31, 1978). Copies of the *Prioritization Document*² were submitted to the Governors of the States and were made available to the general public.

EPA forwarded to ANL for revaluation comments received on the prioritization of major source categories. These comments came from the public sector and from EPA staff. Due to both EPA and public comments, ANL reexamined

34 major source category data sets out of the 156 source category data sets in the original prioritized list. ANL also reexamined 11 minor source category data sets.

3.1 IMPACT OF DATA CHANGES ON MINOR SOURCE CATEGORIES

As a result of both EPA and public comments, 11 minor source categories were reexamined and data changes were made for nine source categories. In addition, one source category (i.e., Printing Ink Mfgr.) was reclassified from a major source to a minor source category. Table 3-1 illustrates the change in potential emission reduction (i.e., Ts-Tn) as a result of the data changes. Table 3.1 indicates some significant potential emission reduction for hydrocarbon source categories resulting from data set revisions.

3.2 IMPACT OF DATA CHANGES ON MAJOR SOURCE CATEGORIES

As a result of EPA and public sector comments on the original prioritized list proposed in the Federal Register, ANL reexamined 34 major source category data sets. The reexamination resulted in data changes for 22 major source categories, which included reclassifying one major source category as a minor source category (i.e., Printing Ink Mfgr.). In addition, seven major source categories were removed from the prioritized list. Six of these source category deletions resulted from up-dated data indicating essentially zero new and replacement source category growth. These source categories are: Varnish/Oleo-Resin, Steel/Open Hearth, High Explosive Waste Mfgr., Grey Iron Cupola, Hydrofluoric Acid Mfgr. and High Btu Gasification. ANL was unable to determine acceptable input data for the Low Explosives Mfgr. Industry, therefore, this source category was dropped from the list.

3.3 IMPACT OF PROGRAM CORRECTION ON PRIORITIZATION LIST

In addition to source category data set changes, a modification to the prioritization program caused some changes to the prioritized list. In the original prioritization program, no provision was made to ignore standard setting for pollutant emissions with a zero Ts-Tn value. For instance, a major source category may have a high Ts-Tn for hydrocarbons and a zero Ts-Tn for particulate emissions and the source category have a high air quality impact for both pollutants. In the development of the original list, the program was

Table 3-1. Minor Source Category Data Change
Impact on (Ts-Tn)^a

Source Category Pollutant	(Ts-Tn) ton/yr		
	Old	New	% Change
Wood Furniture HC	32,600	451,000	1283
Metal Furniture HC	31,300	172,000	449
Mica Mining PM	310	520	68
Mica Drying PM	610	520	-15
Lead Pigment Red Pb	b	b	---
Lead Pigment White Pb	b	b	---
Lead Pigment Chromate Pb	b	b	---
Graphic Arts Lithography HC	26,300	44,000	67
Polyisoprene HC	100	310	210
Printing Ink Mfgr. HC	10,590	8,200	-23

^aTs - Emissions in 1990 under existing (1980) state emission limits (tons/yr).

Tn - Emissions in 1990 under proposed NSPS level of emission control where NSPS is in effect in 1980 (tons/yr).

^bSource categories indicate small potential emission reduction or decreasing capacity.

not instructed to ignore zero Ts-Tn source category/pollutant sets. This problem was corrected and resulted in some shift in source category prioritization irrespective of input source category data set changes.

The elimination of the zero Ts-Tn source category/pollutant sets also resulted in the elimination of some source categories from the list where these source categories had no Ts-Tn values greater than zero. These source categories and the pollutant list from which they were removed are:

<u>Source Category</u>	<u>Pollutant List</u>
Acetic Acid (Butane)	HC, CO
Fiberglass (Textile Process)	PM, NO, CO, FL
Stone Quarrying	PM
Synthetic Rubber	PM
Textile Mfgr. (Heat Setting/Finishing)	HC
Gasoline Additives (Electrolytic)	Pb
Gasoline Additives (Sodium-Lead)	Pb

Table 3-2 is the revised prioritized list of source categories for NSPS promulgation based on source category data changes. A prioritization by (Ts-Tn) requires that the source categories be divided into three distinct groups of high, moderate, and low (Ts-Tn). The range of (Ts-Tn) values for the three groups in the new data set is the same as was used in the original data set. The distribution of source categories among the three (Ts-Tn) groups is roughly the same for both the original and new data sets. In the original data set there were 34 high (Ts-Tn) source categories, 58 moderate and 64 low. In the revised data set there are 29 high (Ts-Tn) source categories, 55 moderate and 64 low.

Table 3-3 indicates the impact data changes had on the source category prioritization rank. Since the total list of prioritized major source categories was reduced from 156 to 148 due to source category deletions, the source category rank is also presented in normalized format for comparative purposes. Table 3-3 contains all the major source categories which received either EPA or public comment except those major source categories deleted from the list. Examination of Table 3-3 indicates that over 60% of the source categories receiving comment incurred only minor change in prioritization rank.

Table 3-4 shows the effectiveness of the prioritized standard setting schedule on emission reduction over a ten year period from 1980 to 1990. The table is similar to Table 3-14 in the original prioritization report.² The

TABLE 3-2 REVISED LIST FOR COMBINED POLLUTANT ANALYSIS, BASELINE STRATEGY (THREE YEAR STANDARD SETTING PERIOD)
MARCH, 1979

YEAR	CUMULATIVE EFFORT	POLLUTANT	STANDARD NUMBER	SOURCE	STANDARD USED	CODE	FLAG
1980.0							
	1.00	HC		ETHYLENE OXIDE PLANTS (AIR OXIDATION PROCESS)	1.679999	21 C11	M2
	2.00	HC		ACRYLONITRILE PLANTS	7.919999	20 C06	M2
	2.25	CO			8.000000	20 C06	M5
	3.25	HC		DIMETHYL TEREPHTHALATE PLANTS	0.370000	20 C28	M2
	4.25	HC		MALEIC ANHYDRIDE	2.620000	20 C23	M2
	4.50	CO			15.599999	20 C23	M5
	5.50	HC		INDUSTRIAL SURFACE COATING (CAN COATING)	0.050000	62 B03	N2
	6.50	HC		(AGG) PETROLEUM REFINERY MISC. SOURCES	0.015000	71 D01	N1
	7.50	HC		INDUSTRIAL SURFACE COATING (PAPER COATING)	0.260000	63 B03	N1
	8.50	HC		DRY CLEANING	24.399994	60 B01	N2
	9.50	HC		GRAPHIC ARTS INDUSTRY (GRAVURE)	65.000000	60 B04	N2
	10.50	HC		PLASTICS AND RESINS (ACRYLIC)	2.400000	20 B17	M5
	11.50	HC		CARBON BLACK (FURNACE PROCESS)	0.800000	20 C03	M5
	11.75	PM			2.000000	20 C03	M4
	12.00	CO			9.799999	20 C03	M5
	12.25	HS		MINERAL WOOL MFG	0.600000	20 C03	M5
	13.25	HC			0.869000	40 D13	M4
	13.50	PM			3.629999	40 D13	M4
	13.75	SO			0.0	40 D13	M6
	14.00	NO			0.090000	40 D13	M6
	14.25	CO			4.719999	40 D13	M5
	15.25	HC		PHTHALIC ANHYDRIDE PLANTS (OXYLENE PROCESS)	0.020000	20 C26	M5
	15.50	PM			2.400000	20 C26	M4
	15.75	CO			3.009999	20 C26	M5
	16.75	HC		STATIONARY INTERNAL COMBUSTION ENGINES (SPARK IGNITION)	0.0	10 C01	N5
	17.00	SO			0.0	10 C01	N6
	17.25	NO			131.000000	10 C01	N4
	17.50	CO			0.0	10 C01	N6
	18.50	HC		INDUSTRIAL SURFACE COATING (FABRIC COATING)	0.260000	64 B02	N4
	19.50	HC		STATIONARY INTERNAL COMBUSTION ENGINES(DIESEL & DUAL FUEL)	0.0	10 C02	N5
	19.75	PM			5.139999	10 C02	N5
	20.00	SO			16.000000	10 C02	N4
	20.25	NO			123.000000	10 C02	N4
	20.50	CO			0.0	10 C02	N6
	21.50	HC		INDUSTRIAL BOILERS (10-250X10E6 BTU/HR)	0.0	10 A03	N6
	21.75	SO			1.500000	10 A03	N4
	22.00	NO			0.365000	10 A03	N5
	22.25	CO			0.0	10 A03	N5
	22.50	FL			0.000500	10 A03	N5
	23.50	PB		INDUSTRIAL INCINERATION (INDUSTRIAL-COMMERCIAL)	0.040000	11 B04	N2
	23.75	PM			0.065000	11 B04	N2
	24.00	NO		CHEMICAL HOOD IND. (NISC)	0.650000	11 B04	N2
	25.00	PM			3.400000	80 A03	M1
	25.25	SO			0.016000	80 A03	M5
	26.25	FI		(AGG) NON-METALLIC MINING - CLAY	35.519999	41 F01	N1
	27.25	PM		PHOSPHATE ROCK (MINING)	6.000000	44 F01	N1
	28.25	NO		STATIONARY PIPELINE COMPRESSOR ENGINES	15.129999	11 C01	N5
	28.50	FI			0.830000	11 C01	N6
	28.75	SO			5.000000	11 C01	N6
	29.00	CO			9.639999	11 C01	N5
	30.00	PM		SAND & GRAVEL PROCESS	0.420000	40 A02	N2
	31.00	FI		(AGG) NON-METALLIC MINING - GYPSUM	5.099999	42 F01	N1

1980.5	32.00	PH	METALIC MINERALS MINING (COPPER)	0.070000	43 E01	H2
	1.00	PH	(AGG) NON-METALLIC MINING - LIME	6.299999	43 F01	N1
	2.00	PH	(AGG) FEED AND GRAIN HILL INDUSTRY	0.193000	30 E01	H4
	3.00	PH	(AGG) SECONDARY COPPER PLANTS (CONVERTER SHELTING)	0.330000	58 B01	H4
	3.25	SO		87.000000	58 B01	H5
	4.25	PH	(AGG) PHOSPHATE ROCK PREPARATION PLANTS	1.389999	41 D01	N4
	5.25	PB	GREY IRON FOUNDRIES (ELECTRIC ARC)	0.0	50 C02	H3
	5.50	PH		0.070000	50 C02	H3
	6.50	PB	METALIC MINERALS MINING (FERROALLOY)	0.003000	42 E01	N2
	6.75	PH		0.600000	42 E01	N2
	7.75	HC	ETHYLENE DICHLORIDE PLANTS (OXYCHLORINATION PROCESS)	0.540000	20 C07	H2
	8.00	CO		0.013000	20 C07	H5
	9.00	HC	ACRYLIC ACID	1.740000	20 C47	H2
	9.25	CO		0.240000	20 C47	H5
	10.25	PB	MUNICIPAL INCINERATION < 50T/D	0.0	10 B03	N4
	10.50	PH		0.300000	10 B03	N5
	10.75	SO		0.030000	10 B03	N5
	11.00	NO		1.049999	10 B03	N6
	11.25	HC	CYCLOHEXANOL/CYCLOHEXANONE	0.010000	10 B03	N6
	12.25	HC		1.007000	20 C49	N2
	12.50	CO	PROPYLENE (OXIDE)	1.115000	20 C49	N5
	13.50	HC	METHYL METHACRYLATE PLANTS	0.592000	20 C36	M2
	14.50	HC	VINYL ACETATE (ETHYLENE)	1.127999	20 C34	M2
	15.50	HC	TEREPHTHALIC ACID PLANTS	0.430000	20 C37	M2
	16.50	HC	ETHYLENE-PROPYLENE	0.210000	20 C27	N3
	17.50	HC	ETHYLENE OXIDE PLANTS (OXYGEN OXIDATION PROCESS)	0.720000	20 D06	M2
	18.50	HC	POLYETHYLENE (HIGH DENSITY)	0.430000	22 C11	M2
	19.50	HC		0.591000	20 B03	H2
	19.75	NO	METHANOL PLANTS	11.250000	20 B03	M2
	20.75	HC		0.100000	20 C32	M2
	21.00	CO	CHARCOAL PLANTS	0.100000	20 C32	N5
	22.00	HC		4.799999	20 C16	M2
	22.25	PH		4.000000	20 C16	H4
	22.50	CO	CYCLOHEXANE	3.200000	20 C16	H5
	23.50	HC		0.200000	20 A14	M2
	23.75	CO	ETHYLENE GLYCOL DERIVED FROM ETHYLENE OXIDE	0.250000	20 A14	N5
	24.75	HC		0.349000	20 C35	M2
	25.00	SO		0.004000	20 C35	M6
	25.25	NO	SYNTHETIC RUBBER (NEOPRENE)	0.010000	20 C35	M6
	26.25	HC	FORMALDEHYDE PLANTS	1.200000	20 D07	M2
	27.25	HC		0.064000	20 C08	N3
	27.50	CO	ADIPIC ACID PLANTS	0.157000	20 C08	N5
	28.50	HC		0.043000	20 A04	H3
	28.75	NO	CARBON TETRACHLORIDE (METHANE)	1.610000	20 A04	H5
	29.00	CO	POLYETHYLENE (LOW DENSITY)	0.115000	20 A04	N5
	30.00	HC		0.360000	20 C38	M2
	31.00	HC	ETHYL BENZENE	0.240000	20 B04	M2
	31.25	PH	ACETIC ANHYDRIDE	0.045000	20 B04	N5
	32.25	HC	VEGETABLE OIL MFG.	0.050000	20 C30	M2
			INDUSTRIAL SURFACE COATING (METAL COILS COATING)			
			P.T.M. ID. (SHIP & BARGE TRANSFER, GAS. & CRUDE OIL)			
1981.0	1.25	HC		0.178000	20 C48	M2
	1.50	PH		0.001000	20 C48	N5
	1.75	CO		0.219000	20 C48	N5
	2.75	HC		16.699997	30 D11	M2
	3.00	PH		0.630000	30 D11	H4
	4.00	HC		0.320000	63 E02	M2
	5.00	HC		0.001300	60 F03	N1

6.00	HC	BY-PRODUCT COKE OVEN	0.042000	50 A10	N2
6.25	PH		0.215000	50 A10	N4
7.25	HC	GRAPHIC ARTS INDUSTRY (FLEXOGRAPHY)	26.000000	60 B05	N2
8.25	HC	ETHYLENE	0.330000	20 C31	N4
8.50	SO		0.014900	20 C31	N5
9.50	HC	SYNTHETIC FIBER INDUSTRY (NYLON)	0.350000	20 B09	N4
9.75	PH		0.750000	20 B09	N4
10.75	HC	PLYWOOD MANUFACTURING PLANT	0.0	80 B01	N4
11.00	PH	WHISKEY	0.001300	80 B01	M2
12.00	HC		0.000055	30 D08	N5
12.25	PH		0.002200	30 D08	N2
13.25	HC	INDUSTRIAL SURFACE COATING (AUTOMOBILES)	0.310000	62 B02	N5
14.25	HC	INDUSTRIAL SURFACE COATING (LARGE APPLIANCE COATING)	0.065000	61 B02	N5
15.25	HC	INDUSTRIAL SURFACE COATING (MASHET WIRE COATING)	0.065000	61 B03	N5
16.25	HC	GRAPHIC ARTS INDUSTRY (LETTERPRESS)	35.000000	60 B07	N4
17.25	HC	P.T.M. ID. (BULK GAS. TERMINALS) LOADING TANK TRUCKS/RR CAR	0.003600	60 F04	N4
18.25	HC	MIXED FUEL BOILERS (COAL & REFUSE)	0.0	10 A06	N5
18.50	PH		0.300000	10 A06	N5
18.75	SO		0.140000	10 A06	N5
19.00	NO	(AGG) CRUDE OIL AND NATURAL GAS PRODUCTION PLANTS	5.250000	10 A06	N4
19.25	AM		0.010000	10 A06	N5
20.25	HC	METALIC MINERALS MINING (LEAD MINING)	0.131000	71 E01	N6
20.50	SO		0.011000	71 E01	N1
21.50	PH	INDUSTRIAL INCINERATION (IND ORGANIC LIQUID WASTE INC)	0.010000	44 E01	N4
21.75	PH		0.700000	44 E01	N4
22.75	HC		0.0	12 B04	N6
23.00	PH		5.400000	12 B04	N4
23.25	NO		0.150000	12 B04	N5
23.50	CO		0.0	12 B04	N5
24.50	PH	METALIC MINERALS MINING (ZINC MINE & CRUSHING)	0.010000	45 E01	N4
24.75	PH	(AGG) SECONDARY ALUMINUM PLANTS	0.700000	45 E01	N4
25.75	PH	POTASH	4.309999	51 B12	M2
26.75	PH		0.660000	20 A18	M2
27.00	NO		0.025000	20 A18	M5
28.00	PH	METALIC MINERALS MINING (URANIUM)	0.110000	47 E01	N3
29.00	PH	FLY-ASH SINTERING (SINTERING)	1.099999	40 D17	N2
30.00	PH	(AGG) NON-METALLIC MINING - BORON COMPOUNDS	1.059999	45 F01	N1
31.00	PH	STEEL FOUNDRIES (ELECTRIC ARC)	0.260000	50 D01	M5
32.00	PH	BEER PROCESSING PLANTS	0.270000	30 D09	M4
1.00	PH	METALIC MINERALS MINING (IRON ORE)	0.500000	41 E01	N4
2.00	PH	METALIC MINERALS MINING (ALUMINUM)	0.110000	46 E01	M5
3.00	PH	GLASS MANUFACTURING INDUSTRY (SODA-LIME GLASS)	0.022000	40 D07	M6
3.25	SO		0.120000	40 D07	M6
3.50	NO		0.360000	40 D07	M6
4.50	PH	GYPSUM MANUFACTURING PLANTS (CALCINER)	0.100000	40 D11	M6
5.50	PH	SODIUM CARBONATE PLANT (NATURAL PROCESS)	0.450000	20 C24	N6

1981.5

1981.5	6.50	PB	GREY IRON FOUNDRIES (REVERBERATORY)	0.0	50	C03	H3
	6.75	PH		0.100000	50	C03	H5
	7.75	P3	GLASS MANUFACTURING INDUSTRY (LEAD GLASS)	0.050000	40	D19	H5
	8.00	PH		0.240000	40	D19	H6
	8.25	SO		0.000000	40	D19	H3
	8.50	NO	(AGG) SECONDARY ZINC SHELTERS (HORIZ & REVERB FURNACES)	0.350000	40	D19	H6
	9.50	PB		0.050000	51	E02	H4
	9.75	PH		0.790000	51	E02	H4
	10.00	FL	(AGG) SECONDARY ZINC SHELTERS (RETORT REDUCTION & KETTLE FURNACES)	0.023100	51	E02	H2
	11.00	PB		0.050000	51	E01	H4
	11.25	PH		2.580000	51	E01	H4
	11.50	FL		0.077030	51	E01	H2
	12.50	HC	CARBON TETRACHLORIDE (PROPANE)	0.320000	20	C39	H2
	13.50	HC	CARBON TETRACHLORIDE (CARBON DISULFIDE)	0.320000	20	C40	H2
	14.50	HC	PHENOL PLANTS	0.044800	20	C33	H2
	14.75	CO		0.035000	20	C33	H5
	15.75	HC	ACETONE (ISOPROPANOL)	0.130000	20	C42	H2
	16.75	HC	METHYL CHLOROFORM	0.350000	20	C44	H3
	17.75	HC	ACETONE (CUMENE)	0.072030	20	C41	H2
	18.75	HC	POLY-BUTADIENE	0.090000	20	D02	H2
	19.75	HC	PHENOLIC RESINS	0.075000	20	B10	H2
	20.75	HC	ACETATE RAYON	0.350000	20	B13	H2
	21.75	HC	UREA-MELAMINE	0.075000	20	B11	H2
	22.75	HC	ALLYL CHLORIDE	0.200000	20	C45	H3
	23.75	HC	ACETONE (CYANOHYDRIN)	0.020000	20	C43	H2
	24.75	HC	AMMONIA PLANTS	0.0	21	C13	H5
	25.75	HC	ACETIC ACID (ACETALDEHYDE)	0.196000	20	A11	H5
	26.00	CO		0.040000	20	A11	H6
	27.00	SO	CHEMICAL WOOD PULPING IND. (ACID SULFITE)	11.900000	80	A04	H1
	27.25	PH		2.440000	80	A04	H1
	28.25	HC	POLYSTYRENE	0.120000	20	B05	H5
	29.25	SO	(AGG) SECONDARY COPPER PLANTS (BLAST FURNACE)	7.679999	57	B01	H2
	29.50	PH		0.198000	57	B01	H5
	29.75	FL		0.078000	57	B01	H2
	30.75	HC	ABS-SAN RESIN PLANT	0.075030	20	B12	H5
	31.75	HC	STYRENE	0.016400	20	C45	H5
	32.00	PH		0.004000	20	C45	H6
	32.25	NO		0.084000	20	C45	H6
1982.0	1.25	HC	ACETIC ACID (METHANOL)	0.150000	20	A12	H5
	2.25	HC	FIBERGLASS MFG. PLANTS (WOOL PROCESSING)	2.089999	40	D14	H4
	2.50	SO		0.005000	40	D14	H5
	2.75	NO		1.570000	40	D14	H4
	3.00	CO		2.240000	40	D14	H6
	3.25	FL	POLYPROPYLENE	0.002000	40	D14	H2
	4.25	FL		0.234000	20	B07	H4
	4.50	PH	PHTHALIC ANHYDRIDE PLANTS (NAPHTHALENE PROCESS)	0.030000	20	B07	H5
	5.50	HC		0.100000	20	C25	H5
	5.75	PH		0.990000	20	C25	H3

6.00	CO	(AGG) ASPHALT ROOFING PLANTS	1.030000	20 C25	M5
7.00	HC		0.430000	41 B01	N4
7.25	PH		0.560000	41 B01	N4
7.50	CO		0.015000	41 B01	N6
8.50	SO	(AGG) TUNNEL KILNS(COAL), DRYERS AND STORAGE	0.720000	45 D12	N5
8.75	PH		1.299999	45 D12	N4
9.00	HC		0.0	45 D12	N6
9.25	FL		0.300000	45 D12	N1
10.25	HC	MIXED FUEL BOILERS (OIL & REFUSE)	0.285000	10 A07	N5
10.50	PH		0.200000	10 A07	H5
10.75	SO		0.010000	10 A07	N6
11.00	NO		13.799999	10 A07	N4
12.00	HC	(AGG) TUNNEL KILNS(OIL), DRYERS AND STORAGE	0.0	45 D11	N5
12.25	PH		1.299999	45 D11	N4
12.50	SO		0.040000	45 D11	N6
12.75	FL	(AGG) TUNNEL KILNS(GAS), DRYERS AND STORAGE	0.300000	45 D11	N1
13.75	HC		0.0	45 D10	N6
14.00	PH		1.299999	45 D10	N4
14.25	FL		0.300000	45 D10	N1
15.25	HC	(AGG) PERIODIC KILNS(COAL), DRYERS AND STORAGE	0.0	46 D12	N6
15.50	PH		1.299999	46 D12	N4
15.75	SO		1.200000	46 D12	N5
16.00	FL		0.300000	46 D12	N1
17.00	HC	(AGG) PERIODIC KILNS(GAS), DRYERS AND STORAGE	0.0	46 D10	N6
17.25	PH		1.299999	46 D10	N4
17.50	FL		0.300000	46 D10	N1
18.50	HC	(AGG) PERIODIC KILNS(OIL), DRYERS AND STORAGE	0.0	46 D11	N6
18.75	PH		1.360000	46 D11	N4
19.00	SO		0.060000	46 D11	N5
19.25	NO		1.700000	46 D11	N6
19.50	FL		0.300000	46 D11	N1
20.50	NO	CERAMIC CLAY MFG	0.200000	40 D10	M6
20.75	FL		0.300000	40 D10	M2
21.75	NO	NITRATE FERTILIZER (AMMONIUM NITRATE) PLANTS	0.003000	30 A05	M6
22.00	PH		0.180000	30 A05	N4
23.00	PH	PESTICIDES MANUFACTURING	0.100000	55 A01	M2
24.00	PH	(AGG) CASTABLE REFRACTORY PLANTS	8.400000	40 D08	M1
24.25	FL		0.130000	40 D08	M1
25.25	PH	BORAX BORIC ACID	1.620000	20 A15	H2
26.25	PH	(AGG) NON-METALLIC MINING - FLUORSAPAR	6.000000	47 F01	N1
26.50	FL		0.100000	47 F01	N1
27.50	PH	POLYESTER RESIN	0.350000	20 B19	M5
28.50	PH	AMMONIUM SULFATE	1.000000	30 D20	M4
29.50	PH	STARCH MFR	0.020000	30 D18	H5
30.50	PH	SYNTHETIC FIBERS INDUSTRY (DACRON POLYESTER)	0.350000	20 B08	M4
31.50	PH	HYDROGEN FLUORIDE	1.009999	20 A17	M4
32.50	PH	PERLITE (VERTICAL FURNACE)	0.210000	40 D12	M5
1982.5					
1.50	PH	PHOSPHORIC ACID PLANTS (THERMAL PROCESS)	0.134000	20 A10	M5
2.50	PH	COTTON GINNING	0.480000	30 B01	N4
3.50	PH	URANIUM REFINING	0.010000	50 F01	N5
4.50	PH	ALFALFA DEHYDRATING PLANTS	0.236000	30 D01	N5
5.50	PH	(AGG) CLAY SINTERING PLANTS	1.099999	40 D16	N5
6.50	PH	ANIMAL FEED DEFLUORINATION	0.062500	30 D10	N5
6.75	FL		0.433000	30 D10	N1
7.75	PH	UREA	1.360000	20 B21	M6
8.75	PH	DETERGENT MANUFACTURING PLANTS	0.450000	20 C10	M6
9.75	FL	PHOSPHORIC ACID PLANTS (HET PROCESS)	0.005000	20 A07	M2
10.75	HS	SYNTHETIC FIBERS INDUSTRY (VISCOSE RAYON)	1.599999	20 B06	H2

Table 3-2 (Cont'd)

Definitions Applicable to Prioritized NSPS Schedules

Cumulative Effort

One effort level is defined as the effort expended for the first pollutant standard set for a source category. For each additional pollutant standard set for the same source category, it is assumed that 1/4 of an effort level will be expended.

Therefore, the number of effort levels expended in any six-month time period will usually be less than the total number of source category-pollutant standards set. The greater the number of multi-pollutant source categories for standard setting in a time period the greater the difference between the cumulative effort level and the actual count of source category-pollutant standards.

Standard Used

This value reflects the best anticipated level of emission reduction (i.e. the NSPS allowable emission (En) in 1b pollutant/unit of production).

Code

The five-character identifier specifying a unique source category. This identifier can be used to cross-reference source category data from different data listings.

M/N Flag

M-Mobile Source Category
N-Non-Mobile Source Category

Numerical FlagCategory Air Quality Impact Change^a

Flag	Es	En
1	High	High
2	High	Moderate
3	High	Low
4	Moderate	Moderate
5	Moderate	Low
6	Low	Low

^aThe numerical air quality impact flag denotes the change in air quality impact from the state emission limitation (Es) to the NSPS limitation (En).

Table 3-3. Data Change Impact on Prioritized List of Major Sources

Major Source Category	Rank in Prioritized List			
	Original		Revised	
	Actual	Normalized	Actual	Normalized
Ammonium Sulfate	87	56	134	91
Polystyrene Production	116	74	107	72
Cotton Ginning ^a	146	94	140	95
Metal Coil Coating (ISC)	65	42	55	37
Fabric Coating (ISC)	12	8	16	11
Auto Surface Coating (ISC)	21	14	63	43
Large Appliance Coating (ISC) ^a	73	47	64	43
Beer Production	37	24	79	53
Gypsum Mining (AGG)	28	18	24	16
Fluorspar Industry	135	87	131	89
Potash	81	52	74	50
Sand & Gravel	27	17	23	16
Vegetable Oil	44	28	54	37
Carbon Black	4	3	12	8
Polypropylene	120	77	120	81
Gravure (Graphic Arts)	13	8	9	6
Letterpress (Graphic Arts)	75	48	66	45
Flexography (Graphic Arts)	67	43	58	39
Formaldehyde	5	3	48	32
By-Product Coke Oven	14	9	57	39
Alfalfa Dehydrating	148	95	142	96
Brick & Related Clay Products ^a				
Periodic Kiln (Gas)	126	81	118	80
Chemical Wood Pulping				
Acid Sulfite	36	23	100	68
Chemical Wood Pulping				
NSSC	34	22	19	13
Total	156	~100	148	~100

^aSource category was reevaluated but no data change was deemed warranted.

prioritization schedule emission reduction is bounded for comparative purposes by the worst possible case of no NSPS standards set during the ten year period and the best possible case of all NSPS standards set in the base year, 1980.

Table 3-4 compares well to Table 3-14² reflecting the original data set. There are only small differences in the percent change of pollutant emissions in the case where all NSPS are set in the base year. This indicates that large differences in percent changes in the case of no NSPS set (i.e., CO and Pb) are primarily due to growth factors. Also, source categories characterized by decreasing capacity and zero replacement rate such as Grey Iron Cupola were deleted from the list. The revised data set indicates a slightly better reduction in particulate emissions and lead emissions and a slight increase in sulfur dioxide emissions and nitrogen oxide emissions.

4 EPA LIST

Table 3-5 indicates the EPA prioritized list based on EPA aggregation of source categories from the ANL list. Table 3-5 compares the proposed EPA list (43FR38872, August 31, 1978) with the revised list resulting from data set revaluations and the final list resulting from both data set revaluations and corrections made to the prioritization program routine (i.e., eliminating zero Ts-Tn pollutant/source category data sets for standard setting).

Table 3-4. Impacts of Prioritization Strategies on Emissions

	Source Categories Regulated	NPS Pollutant Standards Set	Percent Change in 1990 Emissions Over Base Year (1980)							
			PM	SO ₂	NO ₂	HC	CO	PB	AM	H ₂ S FL
1. No NSPS	0	0	29.2	16.3	53.4	71.8	45.5	86.9	46.0	23.9 22.0
2. All NSPS Immediately	148	295	-7.2	12.8	23.5	-29.5	-25.9	-26.9	-35.1	-44.0 -21.9
3. Baseline Strategy	~49 ^a	~98 ^a	-2.1	13.2	25.2	-23.7	-22.3	-20.5	-23.0	-40.2 -13.0

^a Indicates yearly rate. Baseline Strategy requires all standards to be set in three year period starting in 1980.

Table 3-5. REVISED DATA SET IMPACT ON EPA PRIORITIZED LIST
FOR NSPS PROMULGATION

Priority Rank	Proposed EPA List 43FR38872, August 31, 1978	Revised EPA List Jan. 79	2nd Revision ^a March 79
1	Synthetic Organic Chemical Mfgr.	Synthetic Organic Chemical Mfgr.	Synthetic Organic Chemical Mfgr.
2	Carbon Black	Industrial Surface Coatings: Cans	Industrial Surface Coating: Cans
3	Industrial Surface Coatings: Cans	Petroleum Refinery: Fugitive Sources	Petroleum Refinery: Fugitive Sources
4	Petroleum Refinery: Fugitive Sources	Industrial Surface Coating: Paper	Industrial Surface Coating: Paper
5	Industrial Surface Coating: Paper	Dry Cleaning	Dry Cleaning
6	Dry Cleaning	Graphic Arts	Graphic Arts
7	Fuel Conversion	Incineration: Industrial- Commercial	Polymers and Resins: Acrylic Resins
8	Industrial Surface Coating: Fabric	Polymers and Resins: Acrylic Resins	Mineral Wool
9	Graphic Arts	Carbon Black	Stationary Internal Combustion Engines
10	By-Product Coke Oven	Mineral Wool	Industrial Surface Coating: Fabric
11	Incineration: Industrial- Commercial	Stationary Internal Combustion Engines	Fossil-Fuel-Fired Steam Genera- tors; Industrial Boilers
12	Polymers and Resins: Acrylic Resins	Industrial Surface Coating: Fabric	Incineration: Non-Municipal
13	Mineral Wool	Fossil-Fuel Fired Steam Gener- ators; Industrial Boilers	Non-Metallic Mineral Processing
14	Stationary Internal Combustion Engines.	Chemical Wood Pulping: Neutral Sulfite (NSSC).	Metallic Mineral Processing

^aReflects eliminating zero Ts - Tn pollutant/source category data sets.

Priority Rank	Proposed EPA List 43FR38872, August 31, 1978	Revised EPA List Jan. 79	2nd Revision ^a March 79
15	Industrial Surface Coating: Automobiles	Stationary Pipeline Compressor Engines	Secondary Copper
16	Fossil-Fuel-Fired Steam Gener- ators: Industrial Boilers	Non-Metallic Mineral Processing	Phosphate Rock Preparation
17	Explosives	Metallic Mineral Processing	Foundries
17a	Stationary Pipeline Compressor Engines	--	--
18	Non-Metallic Mineral Processing	Secondary Copper	Polymers and Resins: Polyethylene
19	Metallic Mineral Processing	Phosphate Rock Preparation	Charcoal
20	Secondary Copper	Foundries: Grey Iron	Synthetic Rubber
21	Phosphate Rock Preparation	Polymers and Resins: Polyethylene	Vegetable Oil
22	Chemical Wood Pulp: Neutral Sulfite (NSSC)	Charcoal	Industrial Surface Coating: Metal Coil
23	Foundries: Grey Iron	Synthetic Rubber	Transportation & Marketing(Petroleum)
24	Chemical Wood Pulp: Acid Sulfite	Vegetable Oil	By-Product Coke Oven
25	Crude Oil and Natural Gas Production	Industrial Surface Coating: Metal Coil	Synthetic Fibers
26	--	Transportation and Marketing	Plywood Manufacture
27	Vegetable Oil	By-Product Coke Oven	Industrial Surface Coating: Autos
28	Synthetic Rubber	Synthetic Fibers	Industrial Surface Coating: Large Appliance Coating
29	Varnish	Plywood Manufacture	Crude Oil and Natural Gas Production
30	Polymers and Resins: Polyethylene	Industrial Surface Coating: Automobiles	Secondary Aluminum
31	Charcoal	Industrial Surface Coating: Large Appliance Coating	Potash

^a Reflects eliminating zero Ts - Tn pollutant/source category data sets.

Priority Rank	Proposed EPA List 43FR38872, August 31, 1978	Revised EPA List Jan. 79	2nd Revision ^a March 79
32	Industrial Surface Coating: Metal Coil	Crude Oil and Natural Gas Production	Sintering: Gray and Flyash
33	Transportation and Marketing	Secondary Aluminum	Glass
34	Printing Ink	Potash	Gypsum
35	Synthetic Fibers	Sintering: Clay and Flyash	Sodium Carbonate
36	Plywood Manufacture	Foundries: Steel	Secondary Zinc
37	Industrial Surface Coating: Large Appliances	Glass	Polymers and Resins: Phenolic
38	Glass	Gypsum	Polymers and Resins: Urea-Melamine
39	--	Sodium Carbonate	Ammonia
40	Potash	Gasoline Additives	Polymers and Resins: Polystyrene
41	Foundries: Steel	Secondary Zinc	Polymers and Resins: ABS-SAN Resins
42	Secondary Aluminum	Polymers and Resins: Phenolic	Fiberglass
43	Sintering: Clay and Flyash	Chemical Wood Pulping: Acid Sulfite	Polymers and Resins: Polypropylene
44	Ammonium Sulfate	Polymers and Resins: Urea- Melamine	Asphalt Roofing Plants
45	Gypsum	Ammonia	Bricks and Related Clay Products
46	Sodium Carbonate	Polymers and Resins: Polystyrene	Ceramic Clay Mfg.
47	Hydrofluoric Acid	Polymers and Resins: ABS-SAN Resins	Ammonium Nitrate Fertilizer
48	Fiberglass	Fiberglass	Castable Refractories
49	Brick and Related Clay Products	Textile Processing	Borax and Boric Acid

^aReflects eliminating zero Ts - Tn pollutant/source category data sets.

Priority Rank	Proposed EPA List 43FR38872, August 31, 1978	Revised EPA List Jan. 79	2nd Revision ^a March 79
50	Polymers and Resins: Phenolic Resins	Asphalt Roofing Plants	Polymers and Resins: Polyester Resins
51	Polymers and Resins: Urea-Melamine	Brick and Related Clay Products	Ammonium Sulfate
52	Ammonia	Polymers and Resins: Polypropylene	Starch
53	Polymers and Resins: Polystyrene	Ceramic Clay Mfg.	Perlite
54	Polymers and Resins: ABS-SAN Resins	Ammonium Nitrate Fertilizer	Phosphoric Acid: Thermal Process
55	Polymers and Resins: Polypropylene	Castable Refractories	Uranium Refining
56	Textile Processing	Borax and Boric Acid	Animal Feed Defluorination
57	Asphalt Roofing Plants	Polymers and Resins: Polyester Resins	Urea (for fertilizer and polymers)
58	Ceramic Clay	Ammonia Sulfate	Detergent
59	Ammonium Nitrate Fertilizer	Starch	--
60	Castable Refractories	Perlite	--
61	Borax and Boric Acid	Phosphoric Acid: Thermal Process	--
62	Polymers and Resins: Polyester Resins	Uranium Refining	--
63	Starch	Alfalfa Dehydrating	--
64	Perlite	Animal Feed Defluorination	--
65	Phosphoric Acid: Thermal Process	Urea (for fertilizer and polymers)	--
66	Secondary Zinc	Detergent	--
67	Uranium Refining	--	--
68	Alfalfa Dehydrating	--	--

^aReflects eliminating zero Ts - Tn pollutant/source category data sets.

Priority Rank	Proposed EPA List 43FR38872, August 31, 1978	Revised EPA List Jan. 79	2nd Revision ^a March 79
69	Animal Feed Defluorination	--	--
70	Urea (for fertilizer and polymers)	--	--
71	Detergent	--	--
72	Gasoline Additives	--	--

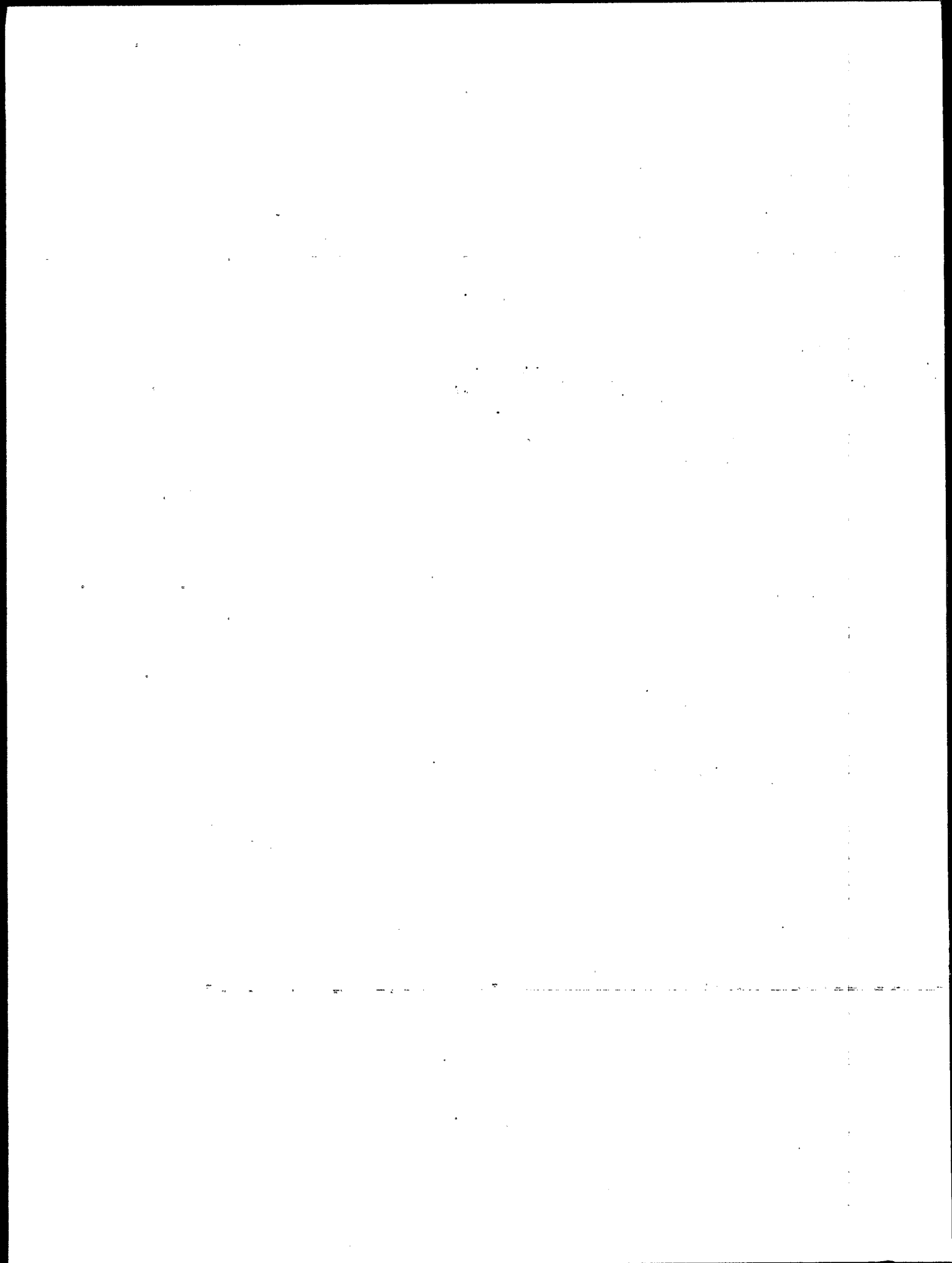
Source Categories Dropped - Ts - Tn for all pollutants zero^a

Acetic Acid (Butane) 20A13, HC, CO
 Fiberglass (Textile Process) 40D06, PM, NO, CO, FL
 Stone Quarrying 40A01, PM
 Synthetic Rubber 20D01, PM
 Textile Mfr. (Heat Setting/Finishing) 90F02, HC
 Gasoline Additives (Electrolytic) 70F02 Pb
 Gasoline Additives (Sodium-Lead) 70F01 Pb

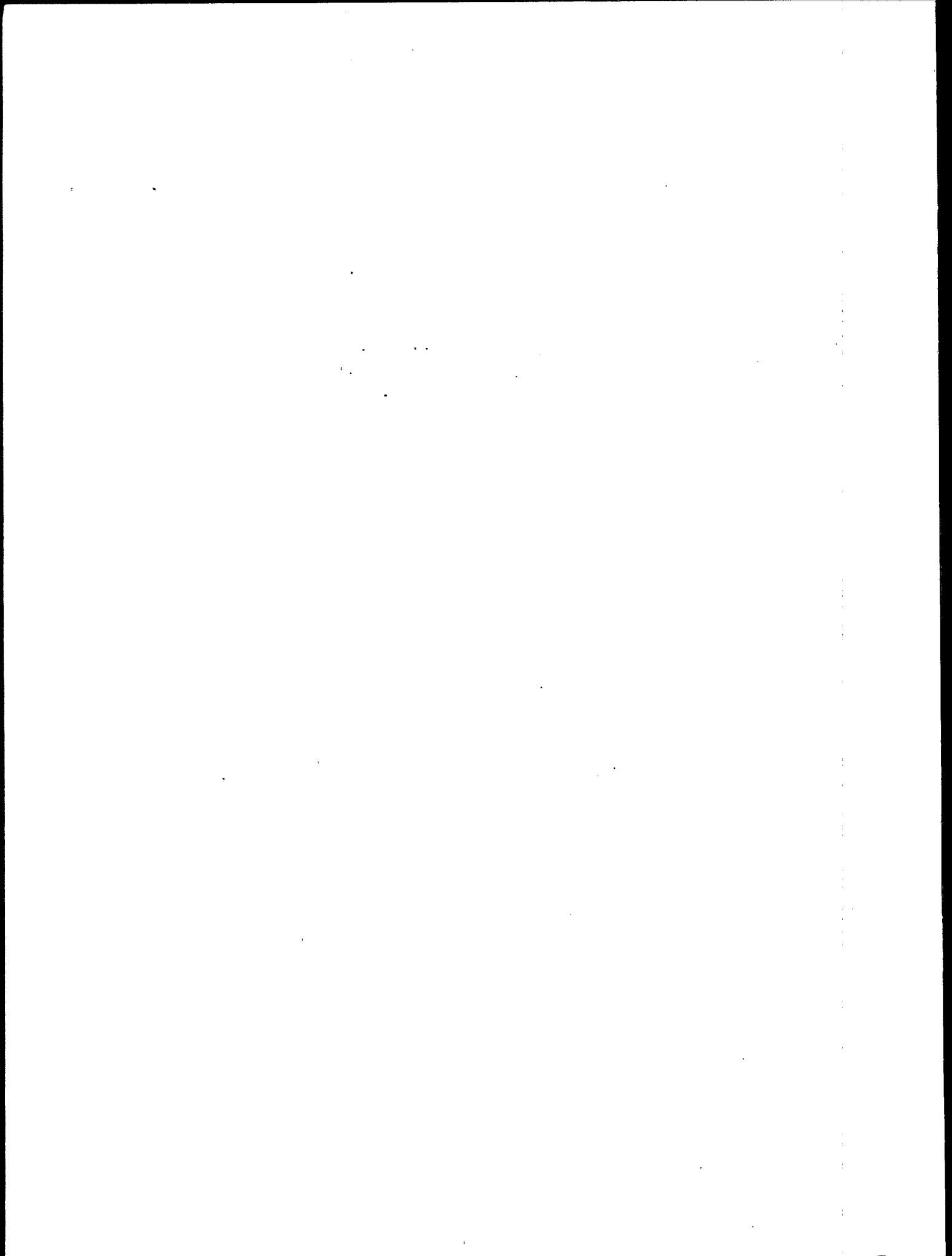
^aReflects eliminating zero Ts-Tn pollutant/source category data sets.

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APPENDIX



MAJOR SOURCE

CODE CHANGE INSTRUCTION SHEET

Source Category (Code No.)	Pollutant ^a	Data	Change		Remarks/S.C. Pollutants
			From	To	
Polystyrene (20B05)		Pb	.058(c)	.02(s)	HC Symbols for growth rate erroneously assigned on calc. sheet
		Pc	.02(s)	.058(c)	
Ammonium Sulfate (30D20)		Pc	.116(c)	0	PM Updated data
		-	-	-	
Metal Coil (63B02)ISC		A	15.56(10 ⁶)	18.71(10 ⁶)	HC
		-	-	-	
Fabric Coating (64B02)ISC	HC	Es	5.34	4.65	HC
		A	34.(10 ⁶)	70.2(10 ⁶)	
Auto Surface Coating (62B02)ISC	HC	A	42.6(10 ⁶)	58.1(10 ⁶)	HC
		Es	5.34	3.60	
Beer Production (30D09)	HC	Eu	10.9	0	PM, HC Remove HC only
		Es	10.9	0	
		En	.109	0	
Grey-Iron Cupola (50-C04)		All	-	0	PM, CO, Pb Remove source from list
		-	-	0	
Gypsum-Mining (42F02)		A	17.14(10 ⁶)	13.94(10 ⁶)	PM
		Pc	.031(c)	.018(s)	
Gypsum-Curshing (42F03)		A	17.14(10 ⁶)	13.94(10 ⁶)	PM
		Pc	.031(c)	.018(s)	
Gypsum-Drying (42F04)		A	17.14(10 ⁶)	13.94(10 ⁶)	PM
		Pc	.031(c)	.018(s)	
Fluorspar Mining (47F02)		K	.80	.83	PM
		Pc	.044(c)	0	

^a Only emission rates are pollutant specific, all other values will impact all source category pollutant emissions.

PM-Particulate Matter, SO₂-Sulfur Dioxide, HC-Hydrocarbons, CO-Carbon Monoxide, NO_x-Nitrogen Oxides, Pb-Lead, H₂S-Hydrogen Sulfide, Fl-Fluorides, A.M.-Sulfuric Acid Mist

MAJOR SOURCE
CODE CHANGE INSTRUCTION SHEET

Source Category (Code No.)	Pollutant ^a	Data	Change		Remarks/S.C. Pollutants
			From	To	
Fluorspar Dryer (47F03)		K	.80	.83	PM, FL
		Pc	.044(c)	0	
Fluorspar Crush & Scrap (47F04)		K	.80	.83	PM
		Pc	.044(c)	0	
Potash (20-A18)		K	.78	.87	NO _x , PM
		Pc	.03(c)	.029(s)	
		A	6.82(10 ⁶)	6.58(10 ⁶)	
Sand & Gravel (40A02)		Pc	0	.01(s)	PM
		A	1142(10 ⁶)	1296(10 ⁶)	
Vegetable Oil* (30D11)	HC	En	15.2	16.7	PM, HC Growth for these. Emission change for HC only. ton/yr vege- table oil
	HC	Es	37.9	25.6	
	HC	Eu	38	86.4	
		Pc	.027(s)	.013(s)	
		K	.92	.80	
		A	7.4(10 ⁶)	5.55(10 ⁶)	
Carbon Black (20C03)		A	2.36(10 ⁶)	2.08(10 ⁶)	Add E Values for SO ₂
		Pc	.025(c)	.025(s)	
	HC	Eu	100	56	
	HC	Es	100	56	
	HC	En	.1	.8	
	CO	Eu	2800	2048	
	CO	Es	2800	2048	
	CO	En	2.8	9.8	
	PM	Eu	200	41	
	PM	Es	3.1	41	
	PM	En	1.1	2	
	SO ₂	Eu	-	104	
	SO ₂	Es	-	104	
	H ₂ S	Eu	60	56	
	H ₂ S	Es	60	56	
	H ₂ S	En	.06	.6	

^a Only emission rates are pollutant specific, all other values will impact all source category pollutant emissions.

PM-Particulate Matter, SO₂-Sulfur Dioxide, HC-Hydrocarbons, CO-Carbon Monoxide, NO_x-Nitrogen Oxides, Pb-Lead, H₂S-Hydrogen Sulfide, Fl-Fluorides, A.M.-Sulfuric Acid Mist

MAJOR SOURCE
CODE CHANGE INSTRUCTION SHEET

Source Category (Code No.)	Pollutant ^a	Data	Change		Remarks/S.C. Pollutants
			From	To	
Carbon Black (20C03)	SO ₂	En -	- -	104 -	Add value
Graphic Arts Gravure (60B04)		Pc A	.050(c) .16(10 ⁶)	.091(s) .182(10 ⁶)	HC
Graphic Arts Flexography (60B05)		Pc A	.050(c) .07(10 ⁶)	.037(s) .055(10 ⁶)	HC
Graphic Arts Letter Press (60B07)		Pc A	.050(c) .15(10 ⁶)	.019(s) .10(10 ⁶)	
Polypropylene (20B07)		K Pc	.78 .12(c)	.89 .13(c)	HC, PM
Formaldehyde (20C08)		A Pc	8.55(10 ⁶) .094(c)	3.67(10 ⁶) .05(c)	HC, CO
By-Product Coke Oven (50A10)	PM SO ₂ NO _x HC ^x CO	Es Es Es Es	5 5.75 .057 5.98 2.67	2.50 2.88 .029 2.99 1.34	PM, SO ₂ , NO _x , HC & CO - Change for all pollu- tants
Steel Open Hearth (50D02)	A11 A11 A11	Pc Pb A11	.028(s) .073(s)	0 0	PM, NO _x Remove source cate- gory from list
Varnish (20C15)	A11 A11	Pc Pb	.067(s) .0263(c)	0 0	HC Remove source from list
Printing Ink (20C19)	HC HC HC	Eu En Es Z A11	120 4.8 48 2.945(10 ³) MAJ	35.10 1.40 35.10 362 MIN	All E's 1b/ton ink-Note, reclassify source as Minor

^a Only emission rates are pollutant specific, all other values will impact all source category pollutant emissions.

PM-Particulate Matter, SO₂-Sulfur Dioxide, HC-Hydrocarbons, CO-Carbon Monoxide, NO_x-Nitrogen Oxides, Pb-Lead, H₂S-Hydrogen Sulfide, Fl-Fluorides, A.M.-Sulfuric Acid Mist

MAJOR SOURCE
CODE CHANGE INSTRUCTION SHEET

Source Category (Code No.)	Pollutant ^a	Data	Change		Remarks/S.C. Pollutants
			From	To	
Alfalfa Dehy- drating (30D01)		Z	.0624(10 ⁶)	.0204(10 ⁶)	PM
High Btu Gasification (21C20)		All			HC, SO ₂ Remove source category from list
Chemical Wood Pulp Acid Sulfide (80A04)	SO ₂	Es	61	39.4	SO ₂ , PM
	SO ₂	En	3.1	11.9	
	SO ₂	Eu	61	81.72	
		Pc	0	-.014(c)	
		A	3.78(10 ⁶)	3.01(10 ⁶)	
	PM	Es	3.00	3.58	
	PM	En	2.00	2.44	
	PM	Eu	24.00	3.60	
		K	.66	.91	
Chemical Wood Pulp NSSC (80A03)		A	5.86(10 ⁶)	3.91(10 ⁶)	Add value
		Pc	.048(s)	.0197(s)	
	PM	Eu	-	158(lb/ton)	
	PM	En	-	3.4 "	
	PM	Es	-	158(lb/ton)	
	SO ₂	Eu	61	1.54	
	SO ₂	En	3.1	.046	
	SO ₂	Es	61	1.54	
		K	.94	.85	
Hydrofluoric Acid Plants (20A08)		All			F1 Remove source category from list
High Explo- sives (20-C19)		All			NO, PM, SO ₂ , AM Remove source category from list

^a Only emission rates are pollutant specific, all other values will impact all source category pollutant emissions.

PM-Particulate Matter, SO₂-Sulfur Dioxide, HC-Hydrocarbons, CO-Carbon Monoxide, NO_x-Nitrogen Oxides, Pb-Lead, H₂S-Hydrogen Sulfide, F1-Fluorides, A.M.-Sulfuric Acid Mist

MAJOR SOURCE

CODE CHANGE INSTRUCTION SHEET

Source Category (Code No.)	Pollutant ^a	Data	Change		Remarks/S.C. Pollutants
			From	To	
Low Explosive	All				Remove source category from list

^a Only emission rates are pollutant specific, all other values will impact all source category pollutant emissions.

PM-Particulate Matter, SO₂-Sulfur Dioxide, HC-Hydrocarbons, CO-Carbon Monoxide, NO_x-Nitrogen Oxides, Pb-Lead, H₂S-Hydrogen Sulfide, F1-Fluorides, A.M.-Sulfuric Acid Mist

MINOR SOURCE

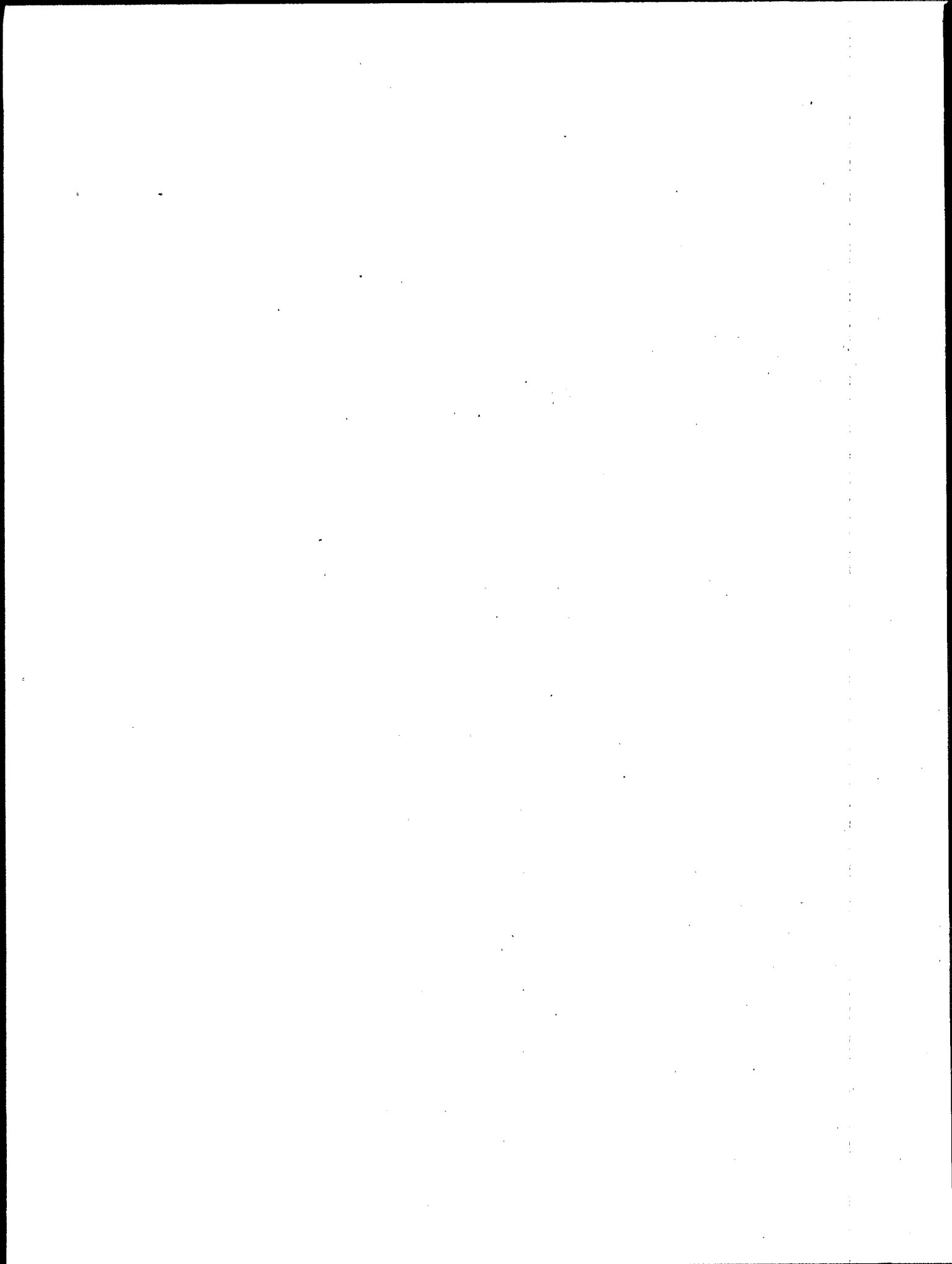
CODE CHANGE INSTRUCTION SHEET

Source Category (Code No.)	Pollutant ^a	Data	Change		Remarks/ S.C. Pollutants
			From	To	
Wood Furni- (65-B02)	HC	Es A	5.34 10.3(10 ⁶)	4.65 165(10 ⁶)	HC
Metal Furni- ture (64-B03)		A	9.39(10 ⁶)	51.8(10 ⁶)	HC
Mica Mining (46-F02)		K Pc A	.80 .017(c) .18(10 ⁶)	.87 .044(s) .212(10 ⁶)	PM
Mica Drying (46-F03)		K Pc A	.80 .017(c) .18(10 ⁶)	.87 .044(s) .212(10 ⁶)	PM
Lead Pigment Red (21A21)		Pc A	.026(c) .0266(10 ⁶)	.014(s) .0384(10 ⁶)	Pb
Lead Pigment White (22A21)		Pc A	.026(c) .00467(10 ⁶)	.014(s) .0067(10 ⁶)	Pb
Lead Pigment Chrome (23A21)		Pc A	.026(c) .0685(10 ⁶)	.014(s) .0990(10 ⁶)	Pb
Graphic Arts Lithography (60B06)		Pc A	.050(c) .08(10 ⁶)	.101(s) .103(10 ⁶)	HC
Polyisoprene (20D05)		Pc A	.030(c) .085(10 ⁶)	.07(c) .134(10 ⁶)	HC
Printing Ink Mfgr (20C19)		All	MAJ	MIN	Source reclassi- fication - Note Major Source change Sheet

^a Only emission rates are pollutant specific, all other values will impact all source category pollutant emissions.

PM-Particulate Matter, SO₂-Sulfur Dioxide, HC-Hydrocarbons, CO-Carbon Monoxide, NO_x-Nitrogen Oxides, Pb-Lead, H₂S-Hydrogen Sulfide, Fl-Fluorides, A.M.-Sulfuric Acid Mist

TECHNICAL REPORT DATA (Please read Instructions on the reverse before completing)		
1. REPORT NO. EPA-450/3-79-023	2.	3. RECIPIENT'S ACCESSION NO.
4. TITLE AND SUBTITLE Revised Prioritized List of Source Categories for NSPS Promulgation	5. REPORT DATE March, 1979	6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) M. R. Monarch	8. PERFORMING ORGANIZATION REPORT NO.	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Energy and Environmental Systems Division Argonne National Laboratory Argonne, Illinois 60439	10. PROGRAM ELEMENT NO.	11. CONTRACT/GRANT NO. IAG-D7-O 1075
12. SPONSORING AGENCY NAME AND ADDRESS Emission Standards and Engineering Division Office of Air Quality Planning and Standards U. S. Environmental Protection Agency Research Triangle Park, NC 27711	13. TYPE OF REPORT AND PERIOD COVERED Final	14. SPONSORING AGENCY CODE
15. SUPPLEMENTARY NOTES		
16. ABSTRACT The Clean Air Act Amendments of 1977 require that the USEPA consider specific criteria in determining priorities for setting NSPS for major source categories: quantity of air pollutant emissions, extent to which air pollutant emissions endanger public health and welfare and the mobility and competitive nature of each source category. A previous report (EPA-450/3-78-019) describes a methodology that has been developed for prioritizing source categories using the Clean Air Act criteria. The methodology, which employs three distinct computer programs, was applied to a data set of over 150 major source categories for nine different air pollutant emissions (particulate matter, sulfur dioxide, nitrogen oxides, hydrocarbons, carbon monoxide lead, sulfuric acid mist, hydrogen sulfide, and fluorides). The program output is a prioritized list of source categories for NSPS promulgation over a ten year period based on a multipollutant source category emission analysis, and was used to propose standard-setting priorities. This report incorporates input data revisions resulting from comments on the proposed list and is used to determine a revised NSPS priority list.		
17. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS Air Pollution Stationary Sources New Source Performance Standards	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
18. DISTRIBUTION STATEMENT Release Unlimited	19. SECURITY CLASS (This Report) Unclassified	21. NO. OF PAGES
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