MEMORANDUM

DATE:

March 8, 2001

TO:

Y e. E. En

City of Gainesville Board of City Commissioners

FROM:

Steven C. Cullen, PE – Koogler & Associates

SUBJECT:

Detailed Review of Manufacturing Uses by 4-Digit SIC Code

An independent analysis of the Water & Air Research report revealed that the scope of the report was far too broad, as the Standard Industrial Classification (SIC) Major Group is broad in every instance. Restricting new business development based on 2-digit Major Group codes would have the unintended consequence of preventing obviously innocuous development, including expansions by existing businesses. Some examples of this broad sweep are:

Major Group 26 includes manufacturing ranging from pulp mills to envelopes and stationery.

Major Group 28 includes manufacturing ranging from perfumes and cosmetics to explosives.

Major Group 29 includes manufacturing ranging from petroleum refining to fireplace starter logs using wax as a binder.

Major Group 32 includes manufacturing ranging from fine table earthenware to asbestos products.

Major Group 33 includes manufacturing ranging from blast furnaces to the drawing of copper wire.

For these reasons, a detailed analysis was conducted on all 4-digit SIC codes contained within manufacturing. Ten SIC codes were determined to be likely major sources of criteria and hazardous air pollutants. Interestingly, all ten codes are within Water & Air Research's 5 least desirable Major Groups (26, 28, 29, 32, and 33).

Major Group 26: Paper And Allied Products

2611 Pulp Mills

Major Group 28: Chemicals And Allied Products

2819 Industrial Inorganic Chemicals

2869 Industrial Organic Chemicals

Major Group 29: Petroleum Refining And Related Industries 2911 Petroleum Refining

Major Group 32: Stone, Clay, Glass, And Concrete Products 3241 Cement, Hydraulic

3296 Mineral Wool

Major Group 33: Primary Metal Industries

3312 Steel Works, Blast Furnaces

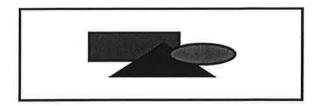
3334 Primary Production of Aluminum

3339 Primary Smelting of Nonferrous Metals

3341 Secondary Smelting of Nonferrous Metals

These industrial classifications fall above a "Bright Line". No other 4-digit codes within the 5 Major Groups are specifically classified as major sources of both criteria air pollutants (generally 100 tons per year of emissions), and hazardous air pollutants (generally 10 tons per year of emissions).

Watson Exh#5



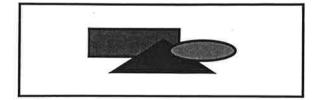
SIC Major Group 26

Major Group 26: Paper And Allied Products

Major Group Structure

This major group includes establishments primarily engaged in the manufacture of pulps from wood and other cellulose fibers, and from rags; the manufacture of paper and paperboard; and the manufacture of paper and paperboard into converted products, such as paper coated off the paper machine, paper bags, paper boxes, and envelopes. Also included are establishments primarily engaged in manufacturing bags of plastics film and sheet. Certain types of converted paper products are classified elsewhere, such as abrasive paper which is in Industry 3291; carbon paper in Industry 3955; and photosensitized and blueprint paper in Industry 3861.

- Industry Group 261: Pulp Mills
 - 2611 Pulp Mills
- Industry Group 262: Paper Mills
 - 2621 Paper Mills
- Industry Group 263: Paperboard Mills
 - 2631 Paperboard Mills
- Industry Group 265: Paperboard Containers And Boxes
 - 2652 Setup Paperboard Boxes
 - 2653 Corrugated And Solid Fiber Boxes
 - 2655 Fiber Cans, Tubes, Drums, And Similar Products
 - 2656 Sanitary Food Containers, Except Folding
 - 2657 Folding Paperboard Boxes, Including Sanitary
- Industry Group 267: Converted Paper And Paperboard Products, Except
 - 2671 Packaging Paper And Plastics Film, Coated And Laminated
 - 2672 Coated And Laminated Paper, Not Elsewhere Classified
 - 2673 Plastics, Foil, And Coated Paper Bags
 - 2674 Uncoated Paper And Multiwall Bags
 - 2675 Die-cut Paper And Paperboard And Cardboard
 - 2676 Sanitary Paper Products
 - 2677 Envelopes
 - 2678 Stationery, Tablets, And Related Products
 - 2679 Converted Paper And Paperboard Products, Not Elsewhere Classified



Division D: Manufacturing

Major Group 26: Paper And Allied Products

Industry Group 261: Pulp Mills

2611 Pulp Mills

Establishments primarily engaged in manufacturing pulp from wood or from other materials, such as rags, linters, wastepaper, and straw. Establishments engaged in integrated logging and pulp mill operations are classified according to the primary products shipped. Establishments engaged in integrated operations of producing pulp and manufacturing paper, paperboard, or products thereof are classified in Industry 2621 if primarily shipping paper or paper products; in Industry 2631 if primarily shipping paperboard or paperboard products; and in Industry 2611 if primarily shipping pulp. Establishments primarily engaged in cutting pulpwood are classified in Industry 2411.

- Deinking of newsprint
- Fiber pulp: made from wood, rags, wastepaper, linters, straw, and
- Pulp mills
- Pulp: soda, sulfate, sulfite, groundwood, rayon, and semichemical
- Rayon pulp
- Wood pulp



SIC Major Group 28

Major Group 28: Chemicals And Allied Products

Major Group Structure

This major group includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes. Establishments classified in this major group manufacture three general classes of products: (1) basic chemicals, such as acids, alkalies, salts, and organic chemicals; (2) chemical products to be used in further manufacture, such as synthetic fibers, plastics materials, dry colors, and pigments; and (3) finished chemical products to be used for ultimate consumption, such as drugs, cosmetics, and soaps; or to be used as materials or supplies in other industries, such as paints, fertilizers, and explosives. The mining of natural alkalies and other natural potassium, sodium, and boron compounds, of natural rock salt, and of other natural chemicals and fertilizers are classified in Mining, Industry Group 147. Establishments primarily engaged in manufacturing nonferrous metals and high-percentage ferroalloys are classified in Major Group 33; those manufacturing silicon carbide are classified in Major Group 32; those manufacturing baking powder, other leavening compounds, and starches are classified in Major Group 20; and those manufacturing artists' colors are classified in Major Group 39. Establishments primarily engaged in packaging, repackaging, and bottling of purchased chemical products, but not engaged in manufacturing chemicals and allied products, are classified in Wholesale or Retail Trade industries.

- Industry Group 281: Industrial Inorganic Chemicals
 - 2812 Alkalies And Chlorine
 - 2813 Industrial Gases

- 2816 Inorganic Pigments
- 2819 Industrial Inorganic Chemicals, Not Elsewhere Classified
- Industry Group 282: Plastics Materials And Synthetic Resins, Synthetic
 - 2821 Plastics Materials, Synthetic Resins, And Nonvulcanizable Elastomers
 - 2822 Synthetic Rubber (vulcanizable Elastomers)
 - 2823 Cellulosic Manmade Fibers
 - 2824 Manmade Organic Fibers, Except Cellulosic
- Industry Group 283: *Drugs*
 - 2833 Medicinal Chemicals And Botanical Products
 - 2834 Pharmaceutical Preparations
 - 2835 In Vitro And In Vivo Diagnostic Substances
 - 2836 Biological Products, Except Diagnostic Substances
- Industry Group 284: Soap, Detergents, And Cleaning Preparations;
 - 2841 Soap And Other Detergents, Except Specialty Cleaners
 - 2842 Specialty Cleaning, Polishing, And Sanitation Preparations
 - 2843 Surface Active Agents, Finishing Agents, Sulfonated Oils, And
 - 2844 Perfumes, Cosmetics, And Other Toilet Preparations
- Industry Group 285: Paints, Varnishes, Lacquers, Enamels, And Allied
 - 2851 Paints, Varnishes, Lacquers, Enamels, And Allied Products
- Industry Group 286: Industrial Organic Chemicals
 - 2861 Gum And Wood Chemicals
 - 2865 Cyclic Organic Crudes And Intermediates, And Organic Dyes And
 - 2869 Industrial Organic Chemicals, Not Elsewhere Classified
- Industry Group 287: Agricultural Chemicals
 - 2873 Nitrogenous Fertilizers
 - 2874 Phosphatic Fertilizers
 - 2875 Fertilizers, Mixing Only
 - 2879 Pesticides And Agricultural Chemicals, Not Elsewhere Classified
- Industry Group 281: If The Chemicals Are Inorganic And In Industry Group 286 If They Are
- Industry Group 289: Miscellaneous Chemical Products
 - 2891 Adhesives And Sealants
 - 2892 Explosives
 - 2893 Printing Ink
 - 2895 Carbon Black
 - 2899 Chemicals And Chemical Preparations, Not Elsewhere Classified

Division D: Manufacturing

Major Group 28: Chemicals And Allied Products
Industry Group 281: Industrial Inorganic Chemicals

2819 Industrial Inorganic Chemicals, Not Elsewhere Classified

Establishments primarily engaged in manufacturing industrial inorganic chemicals, not elsewhere classified. Establishments primarily engaged in mining, milling, or otherwise preparing natural potassium, sodium, or boron compounds (other than common salt) are classified in Industry 1474. Establishments primarily engaged in manufacturing household bleaches are classified in Industry 2842; those manufacturing phosphoric acid are classified in Industry 2874; and those manufacturing

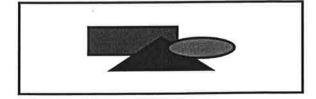
nitric acid, anhydrous ammonia, and other nitrogenous fertilizer materials are classified in Industry 2873.

- Activated carbon and charcoal
- Alkali metals
- Alumina
- Aluminum chloride
- Aluminum compounds
- Aluminum hydroxide (alumina trihydrate)
- Aluminum oxide
- Aluminum sulfate
- Alums
- Ammonia alum
- Ammonium chloride, hydroxide, and molybdate
- Ammonium compounds, except for fertilizer
- Ammonium perchlorate
- Ammonium thiosulfate
- Barium compounds
- Bauxite, refined
- Beryllium oxide
- Bleach (calcium hypochlorite), industrial
- Bleach (sodium hypochlorite), industrial
- Bleaches, industrial
- Bleaching powder, industrial
- Borax (sodium tetraborate)
- Boric acid
- Boron compounds, not produced at mines
- Borosilicate
- Brine
- Bromine, elemental
- Calcium carbide, chloride, and hypochlorite
- Calcium compounds, inorganic
- Calcium metal
- Carbide
- Catalysts, chemical
- Cerium salts
- Cesium metal
- Charcoal, activated
- Chlorosulfonic acid
- Chromates and bichromates
- Chromic acid
- Chromium compounds, inorganic
- Chromium salts
- Cobalt 60 (radioactive)
- Cobalt chloride
- Cobalt sulfate
- Copper chloride
- Copper iodide and oxide
- Copper sulfate

- Cyanides
- Desiccants, activated: silica gel
- Dichromates
- Ferric chloride
- Ferric oxides, except pigments
- Ferrocyanides
- Fissionable material production
- Fluorine, elemental
- Fuel propellants, solid: inorganic
- Fuels, high energy: inorganic
- Glauber's salt
- Heavy water
- High purity grade chemicals, inorganic: refined from technical grades
- Hydrated alumina silicate powder
- Hydrazine
- Hydrochloric acid
- Hydrocyanic acid
- Hydrofluoric acid
- Hydrogen peroxide
- Hydrogen sulfide
- Hydrosulfites
- Hypophosphites
- Indium chloride
- Inorganic acids, except nitric or phosphoric
- Iodides
- Iodine elemental
- Iodine, resublimed
- Iron sulphate
- Isotopes, radioactive
- Laboratory chemicals, inorganic
- Lead oxides, other than pigments
- Lead silicate
- Lime bleaching compounds
- Lithium compounds
- Lithium metal
- Luminous compounds, radium
- Magnesium carbonate
- Magnesium chloride
- Magnesium compounds, inorganic
- Manganese dioxide powder, synthetic
- Mercury chlorides (calomel, corrosive sublimate), except U.S.P.
- Mercury compounds, inorganic
- Mercury oxides
- Mercury, redistilled
- Metals, liquid
- Mixed acid
- Muriate of potash, not produced at mines
- Nickel ammonium sulfate

- Nickel carbonate
- Nickel compounds, inorganic
- Nickel sulfate
- Nuclear cores, inorganic
- Nuclear fuel reactor cores, inorganic
- Nuclear fuel scrap reprocessing
- Oleum (fuming sulfuric acid)
- Oxidation catalyst made from porcelain
- Perchloric acid
- Peroxides, inorganic
- Phosphates, except defluorinated and ammoniated
- Phosphorus and phosphorus oxychloride
- Potash alum
- Potassium aluminum sulfate
- Potassium bichromate and chromate
- Potassium bromide
- Potassium chlorate
- Potassium chloride
- Potassium compounds, inorganic: except potassium hydroxide and
- Potassium cyanide
- Potassium hypochlorate
- Potassium iodide
- Potassium metal
- Potassium nitrate and sulfate
- Potassium permanganate
- Propellants for missiles, solid: inorganic
- Radium chloride
- Radium luminous compounds
- Rare earth metal salts
- Reagent grade chemicals, inorganic: refined from technical grades
- Rubidium metal
- Salt cake (sodium sulfate)
- Salts of rare earth metals
- Scandium
- Silica gel
- Silica, amorphous
- Silico-fluorides
- Silver bromide, chloride, and nitrate
- Silver compounds, inorganic
- Soda alum
- Sodium aluminate
- Sodium aluminum sulfate
- Sodium antimoniate
- Sodium arsenite, technical
- Sodium bichromate and chromate
- Sodium borates
- Sodium borohydride
- Sodium bromide, not produced at mines

- Sodium chlorate
- Sodium compounds, inorganic
- Sodium cyanide
- Sodium hydrosulfite
- Sodium molybdate
- Sodium perborate
- Sodium peroxide
- Sodium phosphate
- Sodium polyphosphate
- Sodium silicate
- Sodium silicofluoride
- Sodium stannate
- Sodium sulfate-bulk or tablets
- Sodium tetraborate not produced at mines
- Sodium thiosulfate
- Sodium tungstate
- Sodium uranate
- Sodium, metallic
- Stannic and stannous chloride
- Strontium carbonate precipitated and oxide
- Strontium nitrate
- Sublimate corrosive
- Sulfate of potash and potash magnesia, not produced at mines
- Sulfides and sulfites
- Sulfocyanides
- Sulfur chloride
- Sulfur dioxide
- Sulfur hexafluoride gas
- Sulfur recovered or refined including from sour natural gas
- Sulfuric acid
- Tanning agents synthetic inorganic
- Thiocyanates, inorganic
- Tin chloride
- Tin compounds, inorganic
- Tin oxide
- Tin salts
- Tungsten carbide powder except abrasives or by metallurgical process
- Uranium slug, radioactive
- Water glass
- Zinc chloride



Division D: Manufacturing

Major Group 28: Chemicals And Allied Products
Industry Group 286: Industrial Organic Chemicals

2869 Industrial Organic Chemicals, Not Elsewhere Classified

Establishments primarily engaged in manufacturing industrial organic chemicals, not elsewhere classified. Important products of this industry include: (1) aliphatic and other acyclic organic chemicals, such as ethylene, butylene, and butadiene; acetic, chloroacetic, adipic, formic, oxalic, and tartaric acids and their metallic salts; chloral, formaldehyde, and methylamine; (2) solvents, such as amyl, butyl, and ethyl alcohols; methanol; amyl, butyl, and ethyl acetates; ethyl ether, ethylene glycol ether, and diethylene glycol ether; acetone, carbon disulfide and chlorinated solvents, such as carbon tetrachloride, perchloroethylene, and trichloroethylene; (3) polyhydric alcohols, such as ethylene glycol, sorbitol, pentaerythritol, synthetic glycerin; (4) synthetic perfume and flavoring materials, such as coumarin, methyl salicylate, saccharin, citral, citronellal, synthetic geraniol, ionone, terpineol, and synthetic vanillin; (5) rubber processing chemicals, such as accelerators and antioxidants, both cyclic and acyclic; (6) plasticizers, both cyclic and acyclic, such as esters of phosphoric acid, phthalic anhydride, adipic acid, lauric acid, oleic acid, sebacic acid, and stearic acid; (7) synthetic tanning agents, such as naphthalene sulfonic acid condensates; (8) chemical warfare gases; and (9) esters, amines, etc., of polyhydric alcohols and fatty and other acids. Establishments primarily engaged in manufacturing plastics materials and nonvulcanizable elastomers are classified in Industry 2821; those manufacturing synthetic rubber are classified in Industry 2822; those manufacturing essential oils are classified in Industry 2899; those manufacturing wood distillation products, naval stores and natural dyeing and tanning materials are classified in Industry 2861; those manufacturing manmade textile fibers are classified in Industries 2823 and 2824; those manufacturing specialty cleaning, polishing, and sanitation preparations are classified in Industry 2842; those manufacturing paints are classified in Industry 2851; those manufacturing area are classified in Industry 2873; those manufacturing organic pigments are classified in Industry 2865; those manufacturing inorganic pigments are classified in Industry 2816 and those manufacturing aliphatics and aromatics as by-products of petroleum refining are classified in Industry 2911. Distilleries engaged in the manufacture of grain alcohol for beverage purposes are classified in Industry 2085.

- Acetaldehyde
- Acetates, except natural acetate of lime
- Acetic acid, synthetic
- Acetic anhydride
- Acetin
- Acetone, synthetic
- Acid esters and amines
- Acids, organic
- Acrolein
- Acrylonitrile
- Adipic acid
- Adipic acid esters
- Adiponitrile
- Alcohol, aromatic
- Alcohol, fatty: powdered
- Alcohol, methyl: synthetic (methanol)
- Alcohols, industrial: denatured (nonbeverage)
- Algin products

- Amyl acetate and alcohol
- Aspartome
- Bromochloromethane
- Butadiene, made in chemical plants
- Butyl acetate, alcohol, and propionate
- Butyl ester solution of 2, 4-D
- Butylene, made in chemical plants
- Calcium oxalate
- Camphor, synthetic
- Caprolactam
- Carbon bisulfide (disulfide)
- Carbon tetrachloride
- Casing fluids for curing fruits, spices, and tobacco
- Cellulose acetate, unplasticized
- Chemical warfare gases
- Chloral
- Chlorinated solvents
- Chloroacetic acid and metallic salts
- Chloroform
- Chloropicrin
- Citral
- Citrates
- Citric acid
- Citronellal
- Coumarin
- Cream of tartar
- Cyclopropane
- Decahydronaphthalene
- Dichlorodifluoromethane
- Diethylcyclohexane (mixed isomers)
- Diethylene glycol ether
- Dimethyl divinyl acetylene (di-isopropenyl acetylene)
- Dimethylhydrazine, unsymmetrical
- Enzymes, except diagnostic substances
- Esters of phosphoric, adipic, lauric, oleic, sebacic, and stearic acids
- Esters of phthalic anhydride
- Ethanol, industrial
- Ether
- Ethyl acetate, synthetic
- Ethyl alcohol, industrial (nonbeverage)
- Ethyl butyrate
- Ethyl cellulose, unplasticized
- Ethyl chloride
- Ethyl ether
- Ethyl formate
- Ethyl nitrite
- Ethyl perhydrophenanthrene
- Ethylene glycol

- Ethylene glycol ether
- Ethylene glycol, inhibited
- Ethylene oxide
- Ethylene, made in chemical plants
- Fatty acid esters and amines
- Ferric ammonium oxalate
- Flavors and flavoring materials, synthetic
- Fluorinated hydrocarbon gases
- Formaldehyde (formalin)
- Formic acid and metallic salts
- Fuel propellants, solid: organic
- Fuels, high energy: organic
- Geraniol, synthetic
- Glycerin, except from fats (synthetic)
- Grain alcohol, industrial (nonbeverage)
- Hexamethylenediamine
- Hexamethylenetetramine
- High purity grade chemicals, organic: refined from technical grades
- Hydraulic fluids, synthetic base
- Industrial organic cyclic compounds
- Ionone
- Isopropyl alcohol
- Ketone methyl ethyl
- Ketone, methyl isobutyl
- Laboratory chemicals, organic
- Lauric acid esters
- Lime citrate
- Malononitrile, technical grade
- Metallic salts of acyclic organic chemicals
- Metallic stearate
- Methanol, synthetic (methyl alcohol)
- Methyl chloride
- Methyl perhydrofluorine
- Methyl salicylate
- Methylamine
- Methylene chloride
- Monochlorodifluoromethane
- Monomethylparaminophenol sulfate
- Monosodium glutamate
- Mustard gas
- Naphthalene sulfonic acid condensates
- Naphthenic acid soap
- Normal hexyl decalin
- Nuclear fuels, organic
- Oleic acid esters
- Organic acid esters
- Organic chemicals, acyclic
- Oxalates

- Oxalic acid and metallic salts
- Pentaerythritol
- Perchloroethylene
- Perfume materials, synthetic
- Phosgene
- Phthalates
- Plasticizers, organic: cyclic and acyclic
- Polyhydric alcohol esters and amines
- Polyhydric alcohols
- Potassium bitartrate
- Propellants for missiles, solid: organic
- Propylene glycol
- Propylene, made in chemical plants
- Quinuclidinol ester of benzylic acid
- Reagent grade chemicals, organic: refined from technical grades,
- Rocket engine fuel, organic
- Rubber processing chemicals, organic: accelerators and antioxidants
- Saccharin
- Sebacic acid
- Silicones
- Sodium acetate
- Sodium alginate
- Sodium benzoate
- Sodium glutamate
- Sodium pentachlorophenate
- Sodium sulfoxalate formaldehyde
- Solvents, organic
- Sorbitol
- Stearic acid salts
- Sulfonated naphthalene
- Sweetners, synthetic
- Tackifiers, organic
- Tannic acid
- Tanning agents, synthetic organic
- Tartaric acid and metallic salts
- Tartrates
- Tear gas
- Terpineol
- Tert-butylated bis (p-phenoxyphenyl) ether fluid
- Tetrachloroethylene
- Tetraethyl lead
- Thioglycolic acid, for permanent wave lotions
- Trichloroethylene
- Trichlorophenoxyacetic acid
- Trichlorotrifluoroethane tetrachlorodifluoroethane isopropyl alcohol
- Tricresyl phosphate
- Tridecyl alcohol
- Trimethyltrithiophosphite (rocket propellants)

- Triphenyl phosphate
- Vanillin, synthetic
- Vinyl acetate

Major Group 29: Petroleum Refining And Related Industries

Major Group Structure

This major group includes establishments primarily engaged in petroleum refining, manufacturing paving and roofing materials, and compounding lubricating oils and greases from purchased materials. Establishments manufacturing and distributing gas to consumers are classified in public utilities industries, and those primarily engaged in producing coke and by-products are classified in Major Group 33.

- Industry Group 291: Petroleum Refining
 - 2911 Petroleum Refining
- Industry Group 295: Asphalt Paving And Roofing Materials
 - 2951 Asphalt Paving Mixtures And Blocks
 - 2952 Asphalt Felts And Coatings
- Industry Group 299: Miscellaneous Products Of Petroleum And Coal
 - 2992 Lubricating Oils And Greases
 - 2999 Products Of Petroleum And Coal, Not Elsewhere Classified Includes fireplace logs using wax as a binder

SIC Description for 2911

Division D: Manufacturing

Major Group 29: Petroleum Refining And Related Industries

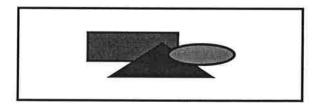
Industry Group 291: Petroleum Refining

2911 Petroleum Refining

Establishments primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants, through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes. Establishments of this industry also produce aliphatic and aromatic chemicals as by-products. Establishments primarily engaged in producing natural gasoline from natural gas are classified in mining industries. Those manufacturing lubricating oils and greases by blending and compounding purchased materials are included in Industry 2992. Establishments primarily re-refining used lubricating oils are classified in Industry 2992. Establishments primarily engaged in manufacturing cyclic and acyclic organic chemicals are classified in Major Group 28.

- Acid oil, produced in petroleum refineries
- Alkylates, produced in petroleum refineries
- Aromatic chemicals, made in petroleum refineries
- Asphalt and asphaltic materials: liquid and solid produced in
- Benzene, produced in petroleum refineries
- Butadiene, produced in petroleum refineries
- Butylene, produced in petroleum refineries
- Coke, petroleum produced in petroleum refineries
- Ethylene, produced in petroleum refineries
- Fractionation products of crude petroleum, produced in petroleum

- Gas, refinery or still oil produced in petroleum refineries
- Gases, liquefied petroleum produced in petroleum refineries
- Gasoline blending plants
- Gasoline, except natural gasoline
- Greases, lubricating: produced in petroleum refineries
- Hydrocarbon fluid, produced in petroleum refineries
- Jet fuels
- Kerosene
- Mineral jelly, produced in petroleum refineries
- Mineral oils, natural: produced in petroleum refineries
- Mineral waxes, natural: produced in petroleum refineries
- Naphtha, produced in petroleum refineries
- Naphthenic acids, produced in petroleum refineries
- Oils, partly refined sold for rerunning produced in petroleum
- Oils fuel, lubricating, and illuminating produced in petroleum
- Paraffin wax, produced in petroleum refineries
- Petrolatums, produced in petroleum refineries
- Petroleum refining
- Propylene, produced in petroleum refineries
- Road materials, bituminous: produced in petroleum refineries
- Road oils, produced in petroleum refineries
- Solvents, produced in petroleum refineries
- Tar or residuum, produced in petroleum refineries



SIC Major Group 32

Major Group 32: Stone, Clay, Glass, And Concrete Products

Major Group Structure

This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, and other products from materials taken principally from the earth in the form of stone, clay, and sand. When separate reports are available for mines and quarries operated by manufacturing establishments classified in this major group, the mining and quarrying activities are classified in Division B, Mining. When separate reports are not available, the mining and quarrying activities, other than those of Industry 3295, are classified herein with the manufacturing operations. If separate reports are not available for crushing, grinding, and other preparation activities of Industry 3295, these establishments are classified in Division B, Mining.

- Industry Group 321: Flat Glass
 - 3211 Flat Glass
- Industry Group 322: Glass And Glassware, Pressed Or Blown
 - 3221 Glass Containers

- 3229 Pressed And Blown Glass And Glassware, Not Elsewhere Classified
- Industry Group 323: Glass Products, Made Of Purchased Glass
 - 3231 Glass Products, Made Of Purchased Glass
- Industry Group 324: Cement, Hydraulic
 - 3241 Cement, Hydraulic
- Industry Group 325: Structural Clay Products
 - 3251 Brick And Structural Clay Tile
 - 3253 Ceramic Wall And Floor Tile
 - 3255 Clay Refractories
 - 3259 Structural Clay Products, Not Elsewhere Classified
- Industry Group 326: Pottery And Related Products
 - 3261 Vitreous China Plumbing Fixtures And China And Earthenware Fittings
 - 3262 Vitreous China Table And Kitchen Articles
 - 3263 Fine Earthenware (whiteware) Table And Kitchen Articles
 - 3264 Porcelain Electrical Supplies
 - 3269 Pottery Products, Not Elsewhere Classified
- Industry Group 327: Concrete, Gypsum, And Plaster Products
 - 3271 Concrete Block And Brick
 - 3272 Concrete Products, Except Block And Brick
 - 3273 Ready-mixed Concrete
 - 3274 Lime
 - 3275 Gypsum Products
- Industry Group 328: Cut Stone And Stone Products
 - 3281 Cut Stone And Stone Products
- Industry Group 329: Abrasive, Asbestos, And Miscellaneous
 - 3291 Abrasive Products
 - 3292 Asbestos Products
 - 3295 Minerals And Earths, Ground Or Otherwise Treated
 - 3296 Mineral Wool
 - 3297 Nonclay Refractories
 - 3299 Nonmetallic Mineral Products, Not Elsewhere Classified

Division D: Manufacturing

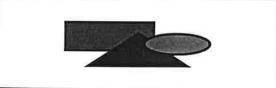
Major Group 32: Stone, Clay, Glass, And Concrete Products

Industry Group 324: Cement, Hydraulic

3241 Cement, Hydraulic

Establishments primarily engaged in manufacturing hydraulic cement, including portland, natural, masonry, and pozzolana cements.

Cement, hydraulic: portland, natural, masonry, and pozzolana



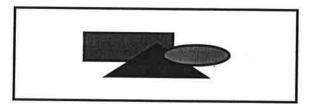
Division D: Manufacturing

Major Group 32: Stone, Clay, Glass, And Concrete Products Industry Group 329: Abrasive, Asbestos, And Miscellaneous

3296 Mineral Wool

Establishments primarily engaged in manufacturing mineral wool and mineral wool insulation products made of such siliceous materials as rock, slag, and glass, or combinations thereof. Establishments primarily engaged in manufacturing asbestos insulation products are classified in Industry 3292, and those manufacturing textile glass fibers are classified in Industry 3229.

- Acoustical board and tile, mineral wool
- Fiberglass insulation
- Glass wool
- Insulation: rock wool, fiberglass, slag, and silica minerals
- Mineral wool roofing mats



SIC Major Group 33

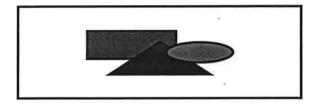
Major Group 33: Primary Metal Industries

Major Group Structure

This major group includes establishments engaged in smelting and refining ferrous and nonferrous metals from ore, pig, or scrap; in rolling, drawing, and alloying metals; in manufacturing castings and other basic metal products; and in manufacturing nails, spikes, and insulated wire and cable. This major group includes the production of coke. Establishments primarily engaged in manufacturing metal forgings or stampings are classified in Industry Group 346.

- Industry Group 331: Steel Works, Blast Furnaces, And Rolling And
 - 3312 Steel Works, Blast Furnaces (including Coke Ovens), And Rolling
 - 3313 Electrometallurgical Products, Except Steel
 - 3315 Steel Wiredrawing And Steel Nails And Spikes
 - 3316 Cold-rolled Steel Sheet, Strip, And Bars
 - 3317 Steel Pipe And Tubes
- Industry Group 332: Iron And Steel Foundries
 - 3321 Gray And Ductile Iron Foundries
 - 3322 Malleable Iron Foundries
 - 3324 Steel Investment Foundries
 - 3325 Steel Foundries, Not Elsewhere Classified
- Industry Group 333: Primary Smelting And Refining Of Nonferrous
 - 3331 Primary Smelting And Refining Of Copper
 - 3334 Primary Production Of Aluminum
 - 3339 Primary Smelting And Refining Of Nonferrous Metals, Except Copper
- Industry Group 334: Secondary Smelting And Refining Of Nonferrous

- 3341 Secondary Smelting And Refining Of Nonferrous Metals
- Industry Group 335: Rolling, Drawing, And Extruding Of Nonferrous
 - 3351 Rolling, Drawing, And Extruding Of Copper
 - 3353 Aluminum Sheet, Plate, And Foil
 - 3354 Aluminum Extruded Products
 - 3355 Aluminum Rolling And Drawing, Not Elsewhere Classified
 - 3356 Rolling, Drawing, And Extruding Of Nonferrous Metals, Except
 - 3357 Drawing And Insulating Of Nonferrous Wire
- Industry Group 336: Nonferrous Foundries (castings)
 - 3363 Aluminum Die-castings
 - 3364 Nonferrous Die-castings, Except Aluminum
 - 3365 Aluminum Foundries
 - 3366 Copper Foundries
 - 3369 Nonferrous Foundries, Except Aluminum And Copper
- Industry Group 339: Miscellaneous Primary Metal Products
 - 3398 Metal Heat Treating
 - 3399 Primary Metal Products, Not Elsewhere Classified



Division D: Manufacturing

Major Group 33: Primary Metal Industries

Industry Group 331: Steel Works, Blast Furnaces, And Rolling And

3312 Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling

Establishments primarily engaged in manufacturing hot metal, pig iron, and silvery pig iron from iron ore and iron and steel scrap; converting pig iron, scrap iron, and scrap steel into steel; and in hotrolling iron and steel into basic shapes, such as plates, sheets, strips, rods, bars, and tubing. Merchant blast furnaces and by-product or beehive coke ovens are also included in this industry. Establishments primarily engaged in manufacturing ferro and nonferrous additive alloys by electrometallurgical processes are classified in Industry 3313.

- Armor plate, made in steel works or rolling mills
- Axles, rolled or forged: made in steel works or rolling mills
- Bars, iron: made in steel works or rolling mills
- Bars, steel made in steel works or hotrolling mills
- Beehive coke oven products
- Billets, steel
- Blackplate
- Blast furnace products
- Blooms
- Car wheels, rolled
- Chemical recovery coke oven products

- Coal gas, derived from chemical recovery coke ovens
- Coal tar crudes, derived from chemical recovery coke ovens
- Coke, produced in beehive ovens
- Coke, produced in chemical recovery coke ovens
- Distillates, derived from chemical recovery coke ovens
- Fence posts, iron and steel: made in steel works or rolling mills
- Flats, iron and steel: made in steel works or hot-rolling mills
- Forgings, iron and steel made in steel works or rolling mills
- Frogs, iron and steel: made in steel works or rolling mills
- Galvanized hoops, pipes, plates, sheets, and strips iron and steel
- Gun forgings, iron and steel: made in steel works or rolling mills
- Hoops, galvanized iron and steel
- Hoops, iron and steel made in steel works or hot-rolling mills
- Hot-rolled iron and steel products
- Ingots, steel
- Iron sinter, made in steel mills
- Iron, pig
- Nut rods, iron and steel made in steel works or rolling mills
- Pipe, iron and steel made in steel works or rolling mills
- Plates, made in steel works or rolling mills
- Rail joints and fastenings, made in steel works or rolling mills
- Railroad crossings, iron and steel: made in steel works or rollingmills
- Rails, iron and steel
- Rails rerolled or renewed
- Rods iron and steel made in steel works or rolling mills
- Sheet pilings, plain: iron and steel-made in steel works or rollingmills
- Sheets, steel: made in steel works or hot-rolling mills
- Shell slugs, steel made in steel works or rolling mills
- Skelp, iron and steel
- Slabs, steel
- Spike rods, made in steel works or rolling mills
- Sponge iron
- Stainless steel
- Steel works producing bars, rods, plates, sheets, structural shapes,
- Strips, galvanized iron and steel: made in steel works or rolling mills
- Strips, iron and steel: made in steel works or hot-rolling mills
- Structural shapes, iron and steel
- Tar, derived from chemical recovery coke ovens
- Terneplate
- Ternes, iron and steel: long or short
- Tie plates, iron and steel
- Tin-free steel
- Tinplate
- Tool steel
- Tube rounds
- Tubes, iron and steel: made in steel works or rolling mills
- Tubing, seamless: steel
- Well casings, iron and steel: made in steel works or rolling mills

- Wheels, car and locomotive: iron and steel-mitse
- Wire products, iron and steel: made steel works or rolling mills
- Wrought pipe and tubing, made in steel works or rolling mills

Division D: Manufacturing

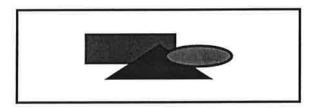
Major Group 33: Primary Metal Industries

Industry Group 333: Primary Smelting And Refining Of Nonferrous

3334 Primary Production of Aluminum

Establishments primarily engaged in producing aluminum from alumina and in refining aluminum by any process. Establishments primarily engaged in rolling, drawing, or extruding aluminum are classified in Industry Group 335.

- Aluminum ingots and primary production shapes, from bauxite or
- Extrusion ingot, aluminum: primary
- Pigs, aluminum
- Slabs, aluminum: primary



SIC Description for 3339

Division D: Manufacturing

Major Group 33: Primary Metal Industries

Industry Group 333: Primary Smelting And Refining Of Nonferrous

3339 Primary Smelting and Refining of Nonferrous Metals, Except Copper Establishments primarily engaged in smelting and refining nonferrous metals, except copper and aluminum. Establishments primarily engaged in rolling, drawing, and extruding these nonferrous primary metals are classified in Industry 3356, and the production of bullion at the site of the mine is classified in Division B, Mining.

- Antifriction bearing metals, lead-base: primary
- Antimony refining, primary
- Babbitt metal, primary
- Beryllium metal
- Bismuth refining, primary
- Blocks, zinc, primary
- Cadmium refining, primary
- Chromium refining, primary
- Cobalt refining, primary
- Columbium refining, primary
- Germanium refining, primary
- Gold refining, primary

- Ingots, primary: nonferrous metals, except copper and aluminum
- Iridium refining, primary
- Lead pigs, blocks, ingots, and refinery shapes: primary
- Lead smelting and refining, primary
- Magnesium refining, primary
- Nickel refining, primary
- Nonferrous refining, primary: except copper and aluminum
- Nonferrous smelting, primary: except copper and aluminum
- Pigs, primary: nonferrous metals, except copper and aluminum
- Platinum-group metals refining, primary
- Precious metal refining, primary
- Primary refining of nonferrous metal: except copper and aluminum
- Primary smelting of nonferrous metal: except copper and aluminum
- Refining of nonferrous metal, primary: except copper and aluminum
- Rhenium refining, primary
- Selenium refining, primary
- Silicon refining, primary (over 99 percent pure)
- Silicon, epitaxial (silicon alloy)
- Silicon, pure
- Silver refining, primary
- Slabs, primary: nonferrous metals, except copper and aluminum
- Smelting of nonferrous metal, primary: except copper and aluminum
- Spelter (zinc), primary
- Tantalum refining
- Tellurium refining, primary
- Tin base alloys, primary
- Tin refining, primary
- Titanium metal sponge and granules
- Zinc dust, primary
- Zirconium metal sponge and granules

Division D: Manufacturing

Major Group 33: Primary Metal Industries

Industry Group 334: Secondary Smelting And Refining Of Nonferrous

3341 Secondary Smelting and Refining of Nonferrous Metals

Establishments primarily engaged in recovering nonferrous metals and alloys from new and used scrap and dross or in producing alloys from purchased refined metals. This industry includes establishments engaged in both the recovery and alloying of precious metals. Plants engaged in the recovery of tin through secondary smelting and refining, as well as by chemical processes, are included in this industry. Establishments primarily engaged in assembling, sorting, and breaking up scrap metal, without smelting and refining, are classified in Wholesale Trade, Industry 5093.

- Aluminum extrusion ingot, secondary
- Aluminum smelting and refining, secondary
- Antimonial lead refining, secondary
- Babbitt metal smelting and refining, secondary

- Brass smelting and refining, secondary
- Bronze smelting and refining, secondary
- Copper smelting and refining, secondary
- Detinning of cans
- Detinning of scrap
- Germanium refining, secondary
- Gold smelting and refining, secondary
- Ingots, nonferrous: smelting and refining-secondary
- Iridium smelting and refining, secondary
- Lead smelting and refining, secondary
- Magnesium smelting and refining, secondary
- Nickel smelting and refining, secondary
- Nonferrous metal smelting and refining, secondary
- Platinum-group metals smelting and refining, secondary
- Precious metal smelting and refining, secondary
- Recovering and refining of nonferrous metals
- Recovery of silver from used photographic film
- Secondary refining and smelting of nonferrous metals
- Selenium refining, secondary
- Silver smelting and refining, secondary
- Solder (base metal), pig and ingot secondary
- Tin smelting and refining, secondary
- Zinc dust, reclaimed
- Zinc smelting and refining, secondary

APPENDIX A

Criteria and Precursor Air Pollutants

Pollutant Name	Identification Code
Carbon Monoxide	CO
Lead - Total (including elemental lead and all lead compounds, expressed as lead)	PB
Nitrogen Oxides (including nitrogen dioxide and nitric oxide, expressed as nitrogen dioxide)	NOX
Particulate Matter - Total (the basis of most emission limitations: including all particles as measured by applicable reference methods, or any equivalent or alternative methods specified in 40 CFR 60 or Department rule)	PM
Particulate Matter - PM10 (the basis of ambient air quality standards and PSD increments: including only those particles nominally 10 microns or less in aerodynamic diameter)	PM10
Sulfur Dioxide	SO2
Volatile Organic Compounds (excluding those compounds defined by rule which do not participate in atmospheric photochemical reactions)	VOC

APPENDIX B

Hazardous Air Pollutants

Pollutant Name	CAS Number	Identification Code
Total Hazardous Air Pollutants		HAPS
Acetaldehyde	75-07-0	H001
Acetamide	60-35-5	H002
Acetonitrile	75-05-8	H003
Acetophenone	98-86-2	H004
2-Acetylaminofluorene	53-96-3	H005
Acrolein	107-02-8	H006
Acrylamide	79-06-1	H007
Acrylic acid	79-10-7	H008
Acrylonitrile	107-13-1	H009
Allyl chloride	107-05-1	H010
4-Aminobiphenyl	92-67-1	H011
Aniline	62-53-3	H012
o-Anisidine	90-04-0	H013
Antimony Compounds		H014
Arsenic Compounds		H015
(inorganic including arsine)		
Asbestos	1332-21-4	H016
Benzene (including benzene from gasoline)	71-43-2	H017
Benzidine	92-87-5	H018
Benzotrichloride	98-07-7	H019
Benzyl chloride	100-44-7	H020
Beryllium Compounds		H021
Biphenyl	92-52-4	H022
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	H023
Bis(chloromethyl)ether	542-88-1	H024
Bromoform	75-25-2	H025
1,3-Butadiene	106-99-0	H026
Cadmium Compounds		H027
Calcium cyanamide	156-62-7	H028
(Reserved)		
Captan	133-06-2	H030
Carbaryl	63-25-2	H031
Carbon disulfide	75-15-0	H032

POLLUTANT IDENTIFICATION CODES

Hazardous Air Pollutants (continued)

		Identification
Pollutant Name	CAS Number	Code
Carbon tetrachloride	56-23-5	H033
Carbonyl sulfide	463-58-1	H034
Catechol	120-80-9	H035
Chloramben	133-90-4	H036
Chlordane	57-74-9	H037
Chlorine	7782-50-5	H038
Chloroacetic acid	79-11-8	H039
2-Chloroacetophenone	532-27-4	H040
Chlorobenzene	108-90-7	H041
Chlorobenzilate	510-15-6	H042
Chloroform	67-66-3	H043
Chloromethyl methyl ether	107-30-2	H044
Chloroprene	126-99-8	H045
Chromium Compounds		H046
Cobalt Compounds		H047
Coke Oven Emissions		H048
Cresols/Cresylic acid (isomers and mixture)	1319-77-3	H049
o-Cresol	95-48-7	H050
m-Cresol	108-39-4	H051
p-Cresol	106-44-5	H052
Cumene	98-82-8	H053
Cyanide Compounds (X'CN, where $X = H'$		H054
or any other group where a formal		
dissociation may occur; for example,		
KCN or Ca(CN)2)		į.
2,4-D, salts and esters	94-75-7	H055
DDE	3547-04-4	H056
Diazomethane	334-88-3	H057
Dibenzofurans	132-64-9	H058
1,2-Dibromo-3-chloropropane	96-12-8	H059
Dibutylphthalate	84-74-2	H060
1,4-Dichlorobenzene(p)	106-46-7	H061
3,3-Dichlorobenzidene	91-94-1	H062
Dichloroethyl ether	111-44-4	H063
(Bis(2-chloroethyl)ether)		

POLLUTANT IDENTIFICATION CODES

Hazardous Air Pollutants (continued)

* a 2011 ...

		Identification	
Pollutant Name	CAS Number	Code	
10 D' 11	540 75 6	11074	
1,3-Dichloropropene	542-75-6	H064	
Dichlorvos	62-73-7	H065	
Diethanolamine	111-42-2	H066	
N,N-Diethyl aniline (N,N-Dimethylaniline)	121-69-7	H067	
Diethyl sulfate	64-67-5	H068	
3,3-Dimethoxybenzidine	119-90-4	H069	
Dimethyl aminoazobenzene	60-11-7	H070	
3,3-Dimethyl benzidine	1119-93-7	H071	
Dimethyl carbamoyl chloride	79-44-7	H072	
Dimethyl formamide	68-12-2	H073	
1,1-Dimethyl hydrazine	57-14-7	H074	
Dimethyl phthalate	131-11-3	H075	
Dimethyl sulfate	77-78-1	H076	
4,6-Dinitro-o-cresol, and salts	534-52-1	H077	
2,4-Dinitrophenol	51-25-8	H078	
2,4-Dinitrotoluene	121-14-2	H0 7 9	
1,4-Dioxane (1,4-Diethyleneoxide)	123-91-1	H080	
1,2-Diphenylhydrazine	122-66-7	H081	
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	H082	
1,2-Epoxybutane	106-88-7	H083	
Ethyl acrylate	140-88-5	H084	
Ethyl benzene	100-41-4	H085	
Ethyl carbamate (Urethane)	51-79-6	H086	
Ethyl chloride (Chloroethane)	75-00-3	H087	
Ethylene dibromide (Dibromoethane)	106-93-4	H088	
Ethylene dichloride (1,2-Dichloroethane)	10706-2	H089	
Ethylene glycol	107-21-1	H090	
Ethylene imine (Aziridine)	151-56-4	H091	
Ethylene oxide	75-21-8	H092	
Ethylene thiourea	96-45-7	H093	
Ethylidene dichloride (1,1-Dichloroethane)	75-34-3	H094	
Formaldehyde	50-00-0	H095	
1 Olliwingity av	20 00 0	110/0	

POLLUTANT IDENTIFICATION CODES

Hazardous Air Pollutants (continued)

• A - ST - ST - S

Pollutant Name			Identification
di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2) _n -OR' where: n = 1, 2, or 3; R = alkyl or aryl groups, and R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH) _n -OH. Polymers are excluded from the glycol category) Heptachlor Hexachlorobenzene 118-74-1 H098 Hexachlorobutadiene 87-68-3 H099 Hexachlorocyclopentadiene 77-47-4 H100 Hexamethylene-1,6-diisocyanate Hexamethylene-1,6-diisocyanate Hexamethylphosphoramide 680-31-9 H103 Hexane 110-54-3 H104 Hydrazine 302-01-2 H105 Hydrochloric acid 7647-01-0 H106 Hydrogen fluoride (Hydrofluoric acid) Hydroquinone 123-31-9 H108 Isophorone 18-59-1 H109 Lead Compounds Lindane (all isomers) Mercury Compounds Mercury C	Pollutant Name	CAS Number	Code
di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2) _n -OR' where: n = 1, 2, or 3; R = alkyl or aryl groups, and R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH) _n -OH. Polymers are excluded from the glycol category) Heptachlor Hexachlorobenzene 118-74-1 H098 Hexachlorobutadiene 87-68-3 H099 Hexachlorocyclopentadiene 77-47-4 H100 Hexamethylene-1,6-diisocyanate Hexamethylene-1,6-diisocyanate Hexamethylphosphoramide 680-31-9 H103 Hexane 110-54-3 H104 Hydrazine 302-01-2 H105 Hydrochloric acid 7647-01-0 H106 Hydrogen fluoride (Hydrofluoric acid) 7664-39-3 H107 Hydroquinone 123-31-9 H108 Isophorone 178-59-1 H109 Lead Compounds Lindane (all isomers) Maleic anhydride Manganese Compounds Mercury Compounds H111 Methyl chloride (Chloromethane) 72-43-5 H116 Methyl chloride (Chloromethane) 74-83-9 H117 Methyl chloride (Chloromethane) 74-87-3 H118 Methyl chloroform (1,1,1-Trichloroethane) 78-93-3 H120 Methyl hydrazine 60-34-4 H121			
diethylene glycol, and triethylene glycol R-(OCH2CH2) _n -OR' where: n = 1, 2, or 3; R = alkyl or aryl groups, and R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH) _n -OH. Polymers are excluded from the glycol category) Heptachlor 76-44-8 H097 Hexachlorobenzene 118-74-1 H098 Hexachlorobutadiene 87-68-3 H099 Hexachlorocyclopentadiene 77-47-4 H100 Hexachlorothane 67-72-1 H101 Hexamethylene-1,6-diisocyanate 822-06-0 H102 Hexamethylphosphoramide 680-31-9 H103 Hexane 110-54-3 H104 Hydrazine 302-01-2 H105 Hydrochloric acid 7647-01-0 H106 Hydrogen fluoride (Hydrofluoric acid) 7664-39-3 H107 Hydroquinone 123-31-9 H108 Isophorone 78-59-1 H109 Lead Compounds 123-31-9 H108 Lindane (all isomers) 58-89-9 H111 Maleic anhydride 108-31-6 H112 Manganese Compounds H113 Mercury Compounds H114 Methanol 67-56-1 H115 Methoxychlor 72-43-5 H116 Methyl chloride (Chloromethane) 74-87-3 H118 Methyl chloroform (1,1,1-Trichloroethane) 74-87-3 H118 Methyl chloroform (1,1,1-Trichloroethane) 78-93-3 H120 Methyl hydrazine 60-34-4 H121	•		H096
glycol R-(OCH2CH2) _n -OR' where: n = 1, 2, or 3; R = alkyl or aryl groups, and R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH) _n -OH. Polymers are excluded from the glycol category) Heptachlor Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocytopentadiene Hexamethylene-1,6-diisocyanate Hexamethylphosphoramide Hexamethylphosphoramide Hexane Hoppitalian Hexane Hoppitalian Hoppitalian Hexane Hoppitalian Hoppit			
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Methyl hydrazine 60-34-4 H121			
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	Methyl iodide (Iodomethane)	74-88-4	H122

POLLUTANT IDENTIFICATION CODES

Hazardous Air Pollutants (continued)

		Identification
Pollutant Name	CAS Number	Code
	100.10.1	77100
Methyl isobutyl ketone (Hexone)	108-10-1	H123
Methyl isocyanate	624-83-9	H124
Methyl methacrylate	80-62-6	H125
Methyl tert butyl ether	1634-04-4	H126
4,4-Methylene bis (2-chloroaniline)	101-14-4	H127
Methylene chloride (Dichloromethane)	75-09-2	H128
Methylene diphenyl diisocyanate (MDI)	101 - 68-8	H129
4,4-Methylenedianiline	101-77-9	H130
Mineral fibers (fine), includes		H131
mineral fiber emissions from facilities		
manufacturing or processing glass, rock,		
or slag fibers (or other mineral derived		
fibers) of average diameter 1 micrometer		
or less		
Naphthalene	91-20-3	H132
Nickel Compounds		H133
Nitrobenzene	98-95-3	H134
4-Nitrobiphenyl	92-93-3	H135
4-Nitrophenol	100-02-7	H136
2-Nitropropane	79-49-6	H137
N-Nitroso-N-methylurea	684-93-5	H138
N-Nitrosodimethylamine	62-75-9	H139
N-Nitrosomorpholine	59-89-2	H140
Parathion	56-38-2	H141
Pentachloronitrobenzene (Quintobenzene)	82-68-8	H142
Pentachlorophenol	87-86-5	H143
Phenol	108-95-2	H144
p-Phenylenediamine	106-50-3	H145
Phosgene	75-44-5	H146
Phosphine	7803-51-2	H147
Phosphorus	7723-14-0	H148
Phthalic anhydride	85-44-9	H149
Polychlorinated biphenyls (Aroclors)	1336-36-3	H150
J VIIII		

POLLUTANT IDENTIFICATION CODES

Hazardous Air Pollutants (continued)

dwater -

		Identification
Pollutant Name	CAS Number	Code
Polycyclic organic matter (includes		H151
organic compounds with more than one		
benzene ring, and which have a boiling		
point greater than or equal to 100°C)		
1,3-Propane sultone	1120-71-4	H152
beta-Propiolactone	57-57-8	H153
Propionaldehyde	123-38-6	H154
Propoxur (Baygon)	114-26-1	H155
Propylene dichloride (1,2-Dichloropropane)	78-87-5	H156
Propylene oxide	75-56-9	H157
1,2-Propylenimine (2-Methyl aziridine)	75-55-8	H158
Quinoline	91-22-5	H159
Quinone	106-51-4	H160
Radionuclides (including radon), a		H161
type of atom which spontaneously		
undergoes radioactive decay	W.	
Selenium Compounds		H162
Styrene	100-42-5	H163
Styrene oxide	96-09-3	H164
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	H165
1,1,2,2-Tetrachloroethane	79-34-5	H166
Tetrachloroethylene (Perchloroethylene)	127-18-4	H167
Titanium tetrachloride	7550-45-0	H168
Toluene	108-88-3	H169
2,4-Toluene diamine	95-80-7	H170
2,4-Toluene diisocyanate	584-84-9	H171
o-Toluidine	95-53-4	H172
Toxaphene (chlorinated camphene)	8001-35-2	H173
1,2,4-Trichlorobenzene	120-82-1	H174
1,1,2-Trichloroethane	79-00-5	H175
Trichloroethylene	79-01-6	H176
2,4,5-Trichlorophenol	95-95-4	H177
2,4,6-Trichlorophenol	88-06-2	H178
Triethylamine	121-44-8	H179
Trifluralin	1582-09-8	H180

POLLUTANT IDENTIFICATION CODES

Hazardous Air Pollutants (continued)

		Identification	
Pollutant Name	CAS Number	Code	
2,2,4-Trimethylpentane	540-84-1	H181	
Vinyl acetate	108-05-4	H182	
Vinyl bromide	593-60-2	H183	
Vinyl chloride	75-01-4	H184	
Vinylidene chloride (1,1-Dichloroethylene)	75-35-4	H185	
Xylenes (isomers and mixtures)	1330-20-7	H186	
o-Xylenes	95-47-6	H187	
m-Xylenes	108-38-3	H188	
p-Xylenes	106-42-3	H189	