

TABLE 3-3. Major Air Contaminants from Some Industrial Sources

Chemical Industry	Metallurgical Industry	Construction Industry
Ammonia plant	Aluminum ore reduction	Asphalt roofing
Carbon monoxide	Hydrogen fluoride	Oil mists
Ammonia	Particulate fluoride	Benzo(a)pyrene
Chlorine plant	Carbon, alumina	Asbestos
Chlorine gas	Copper smelters	Carbon monoxide
Mercury	Carbon monoxide	Brick
Hydrofluoric acid	Sulfur oxides	Fluorides
Hydrogen fluoride	Nitrogen oxides	Sulfur dioxide
Silicon tetrafluoride	Cadmium	Calcium carbide
Sulfur dioxide	Iron-steel	Carbon monoxide
Nitric acid manufacture	Carbon monoxide	Acetylene
Nitric oxide	Sulfur oxides	Sulfur oxides
Nitrogen dioxide	Iron oxides	Cement
Paint, varnish	Fluorides	Various kinds of dust
Aldehydes	Nickel carbonate	Chromium
Ketones	Silicates	Ceramic and clay processes
Phenols	Graphite	Fluorides
Terpenes	Lead and zinc smelters	Silicates
Glycerines	Sulfur dioxides	Ammonia
Petroleum refinery	Fluorides	Frit (glazing enamel)
Hydrogen sulfide	Cadmium	Fluorides
Selenium	Magnesium smelters	Silica
Fluorides	Fluorides chlorine	Boron
Hydrocarbons	Barium oxide	Glass
Phosphoric acid	Secondary metals industry	Chlorine
Silicon tetrafluoride	Nitrogen oxides	Fluorides
Hydrogen fluoride	Metal oxides	Sulfur oxides
Phthalic anhydride	Hydrochloric acid	Nitrogen oxides
Hexane	Brass and bronze smelters	Carbon monoxide
Maleic anhydrides	Zinc oxide	
Printing ink	Lead oxides	Food Industry
Acrolein	Secondary aluminum smelters:	Coffee roasting
Fatty acids	Fluorides	Smoke
Phenols	Chlorides	Odors
Terpenes	Ozone	Fish-metal processing
Sulfuric acid	Numerous metals	Hydrogen sulfide
Sulfur dioxide		Trimethylamine
Sulfur oxides		
Nitrogen oxides		
Synthetic rubber		
Alkanes		
Alkenes		
Ethanenitrile		
Carbonyls		

TABLE 3-4. Major Water Contaminants from Some Industrial Sources

INDUSTRY	ORIGIN OF CONTAMINANTS	COMPONENTS AND CHARACTERISTICS OF CONTAMINANTS
Food		
Canning	Fruit and vegetable preparation	Colloidal, dissolved organic matter, suspended solids
Dairy	Whole milk dilutions, buttermilk	Dissolved organic matter (protein, fat, lactose)
Brewing, distilling	Grain, distillation	Dissolved organics, nitrogen fermented starches
Meat, poultry	Slaughtering, rendering of bones and fats, plucking	Dissolved organics, blood, proteins, fats, feathers
Sugar beet	Handling juices, condensates	Dissolved sugar and protein
Yeast	Yeast filtration	Solid organics
Pickles	Lime water, seeds, syrup	Suspended solids, dissolved organics, variable pH
Coffee	Pulping and fermenting beans	Suspended solids
Fish	Pressed fish, wash water	Organic solids, odor
Rice	Soaking, cooking, washing	Suspended and dissolved carbohydrates
Soft drinks	Cleaning, spillage, bottle washing	Suspended solids, low pH
Pharmaceutical		
Antibiotics	Mycelium, filtrate, washing	Suspended and dissolved organics
Clothing		
Textiles	Desizing of fabric	Suspended solids, dyes, alkaline
Leather	Cleaning, soaking, bating	Solids, sulfite, chromium, lime, sodium chloride
Laundry	Washing fabrics	Turbid, alkaline, organic solids

(continued)

