Index
Adverse health effects, 4,9-10,43

Air
  amount inhaled, 3, 15
  composition of, 6, 15,29
  contaminants, 56
  hazardous pollutants of, 7,49,52
  pollutants, 6-8,25,31,62-65
  quality, 6-8

Airborne substances, 4,6,8

Aldehydes, 66

Alkyl halide, substituted, 51

Alpha1-antitrypsin, 21

American Thoracic Society (ATS), 43

Animal, selection of appropriate test, 6,34

Arsenic, inorganic, 49

Asbestos, 22,29,49,61,63-64,66

Asthma, 5,21,22,64

Benzene, 49,61,66

Beryllium, 34,49,62,66

Biological agents, 4,8

Biologically effective dose, 6,31-33

Black lung disease, 61

Bronchitis, chronic, 19-20,21

Bronchoalveolar lavage (BAL), 41

Bronchoalveolar lavage fluid (BALF), 38

Bronchoconstriction, 21,34

Butadiene, 66

Bysinossis, 21

Cadmium, 21

Carbon monoxide (CO), 8,25,29,49

Centers for Disease Control (CDC), 64

Chemical pneumonitis, 61

Chronic bronchitis, 5,19,64

Chronic obstructive airway disease (COAD), 21

Chronic obstructive lung disease (COLD), 21

Chronic obstructive pulmonary disease (COPD), 21

Clean Air Act (CAA), 7,49-51

Clean Air Science Advisory Committee (CASAC), 9

Clinical studies, 35-40

Coal, 61,64

Coke oven emissions, 49

Colorado State University, 65

Consumer Product Safety Act (CPSA), 61

Consumer Product Safety commission (CPSC), 49,61

Data, assessments of, 41

Department of Energy (DOE), 65-66

Department of Health and Human Services (DHHS), 62-65

Department of Labor (DOL), 49,55

Diesel exhaust, 66

Diisocyanates, 51

Division of Respiratory Disease Studies (DRDS), 64

Dose-response assessment, 30-31

Dosimetry, 31,34-35,66

Duke University, 62

Dust, 4,21-22,29,62-65

Early Reduction Program (ERP), 49-51,54

Emphysema, 5,20-21,64

Environmental Protection Agency (EPA),
  regulation, 9,49-55
  research, 9,62,66-67

Epidemiologic studies, 40-43

Epidemiology, defined, 4,6

Exposure
  acute, 7-9,31,43,51,62
  chronic, 9,31,43,51,62
  defined, 6,31
  environmentally relevant levels of, 4,43
  indoor, 8, 29
  occupational, 4,5,7,25,66
  outdoor, 4, 29
  technologies to measure, 35-36,41

Exposure assessment, 8,30-31,34-35

Extrinsic allergic alveolitis, 22

Farmers, 22,65

Federal Hazardous Substances Act (FHSA), 61

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 49,54-55

Federal Mine Safety and Health Act (FMSHA), 7, 55,64

Fiberglass, 66

Fibrosis, 5

Food and Drug Administration (FDA), 49,61-62

Food, Drug, and Cosmetics Act (FDCA), 61

Formaldehyde, 8,25,29,61

Gas exchange, 16,20,22,63

Gasoline, 61

Harvard University, 63,64

Hazard identification, 30-31

Health effects assessment, 35-43

Health Effects Institute (HEI), 66

Health Effects Institute—Asbestos Research
(HEIAR), 66
Health Effects Research Laboratory (HERL), 62
Hydrocarbons, 25
Immune
  responses, 19,22
  system, 19,38
Indoor air, 8,29
Inhalation Toxicology Research Institute (ITRI), 65-66
Isobutyl nitrite (IBN), 63
Kerosene, 61
Laboratories studies, 35-40
Lead, 49
Los Amigos Research and Education Institute, 66
Los Angeles, CA 7,9,42
Louisiana State University, 63
Lung
  injury and disease, 5, 19-22
  structure and function, 5, 15-19
  toxicology and epidemiology of, 5-6,29-33
Magnetopneumography, 33
Maximum achievable control technology (MACT), 49
Medical College of Wisconsin, 62
Mercury, 49
Methanol, 66
Microscopy, 33,39
Mine Safety and Health Administration (MSHA), 49,61
Miners, 64
Morgantown, WV, 64
Morphometry, 38
Naphtha, 61
Nasopharyngeal region, 5,15
National Academy of Sciences (NAS), 38
National Ambient Air Quality Standards (NAAQS), 49,50
National Center for Toxicological Research (NCTR), 65
National Coal Workers’ Autopsy Study, 64
National Farm Medicine Center, 65
National Heart Lung and Blood Institute (NHLBI), 63-64
National Institute for Occupational Safety and Health (NIOSH), 64
National Institutes of Health (NIH), 62
National Institute of Environmental Health Sciences (NIEHS), 62
National Jewish Center for Immunology and Respiratory Medicine, 63
Nickel, 66
Nitric acid, 62
Nitrogen dioxide, 8,29,49
Nitrogen oxides, 6,9,25,29,66
Occupational Safety and Health Act (OSH Act), 7,55
Occupational Safety and Health Administration (OSHA), 49, 55-60
Office of Technology Assessment
  scope of the report, 3-4
  studies on neurotoxicity and immunotoxicity, 6, 19
  terminology used by, 3-4
Oxidants, 25
Oxirane, substituted, 51
Ozone, 9,29,49,62-64,66
Particulate, 6,20,25,29,49,63
Pennsylvania State University, 63
Perhalo alkoxy ether, 54
Pesticides, 55
Pleural cavity, 17
Pneumoconiosis, 61,
Pneumonia, 61
Pulmonary circulation, 16
Pulmonary edema, 54,61
Pulmonary fibrosis, 22
Pulmonary region, 5,16,32
Pulmonary toxicants, 3,29,51,62,67
Pulmonary toxicity, 9,37,43,66
Radionuclides, 49
Radon, 8
Regulators, 3-4,8,10,29,44
Regulatory activities, Federal
  Consumer Product Safety Commission, 49,61
  Department of Labor, 49,55
  Environmental Protection Agency, 49-55
  Food and Drug Administration, 49,61
  Occupational Safety and Health Administration, 49,55
  Mine Safety and Health Administration, 49,61
Research, Federal
  Centers for Disease Control, 64
  Department of Energy, 65-66
  Department of Health and Human Services, 62-65
  Environmental Protection Agency, 9,62,66-67
  National Center for Toxicological Research, 65
  National Heart Lung and Blood Institute, 63-64
  National Institute for Occupational Safety and Health, 64
  National Institute of Environmental Health Sciences, 62-63
  National Institutes of Health, 62
  see also Studies.
Research Triangle Park, NC, 62
Resource Conservation and Recovery Act (RCRA), 49,51,55
Respirable particles, 22
Respiratory system
   cells of the, 17-19
   defense mechanisms, 5, 15,19,32
   responses to harmful substances, 5, 19-22
   species differences, 34
   structure and function, 5, 15-19
Risk assessment, 29-31
Risk characterization, 30-31
Senate, Committee on Environment and Public Works, Subcommittee on Toxic Substances, Environmental Oversight, Research and Development, 3
Silane, 54
Silicosis, 62
Smoking, 5,20,21,29,40
Spirometry, 37,39,41
State University of New York at Buffalo, 64
State University of New York at Stony Brook, 63
Studies
   clinical, 3,5-6,8-9,35-40,43,44, 62,64
   epidemiologic, 3,5-6,8-9,20,35,40-43, 62,64
   laboratory, 3,5-6,8,34-35,38,43-44
   limitations of, 43-44
   see also Research; Tests
Sulfur dioxide, 5,20,22,29
Sulfur oxides, 6,25,29,49,66
Sulfuric acid, 62
Susceptible populations, 8,44,62
Tests
   biochemical, 6,9,38
   biological, 40-43
   molecular, 38
   physiologic, 36-38
   structure, 38
   see also Studies
Textiles, 21,64
33/50 Program, 51,54
Tobacco smoke, 5,8,25,29,42,63
Toluene, 61
Toxic Release Inventory (TRI), 51
Toxic Substances Control Act (TSCA), 49,51-54
Toxicants
   Federal regulation of, 49-62
   Federal research on, 62-66
   industrial, 23
   monitoring of, 31
   physical properties of, 33-34
Toxicology, 4,5-6,30
Tracheobronchial region, 5, 15,32,62
Turpentine, 61
University of California at Berkeley, 63-64
University of California at Davis, 63,65
University of California at Irvine, 63
University of California at Los Angeles (ULCA), 42
University of California at Santa Barbara, 64
University of Maryland, 63
University of New Mexico, 64
University of North Carolina, 62
University of Rochester School of Medicine, 63
University of Vermont, 64
Vinyl chloride, 49
Volatile organic compounds, 8-9,25,32,62
Woodsmoke, 6,8,25
Workers, 6,64,66
Xylene, 61