## COMMON OCCUPATIONAL CODE SYSTEM (COCS) DESCRIPTION

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|---|---|
| **C000** | **CRAFTS** |
| C010 | Carpenters |
| C020 | Electricians |
| C030 | (HVAC) Heat Air-Conditioning/Refrigeration Mechanics |
| C040 | Machinists |
| C050 | Masons |
| C060 | Millwrights |
| C070 | Painters |
| C080 | Plumbers/Pipefitters |
| C090 | Structural/Metal Workers |
| C100 | Vehicle/Mobile Equipment Mechanics |
| C110 | Welders |
| C120 | Other Crafts |
| | |
| **E000** | **ENGINEERS** |
| E010 | Chemical Engineers |
| E020 | Civil Engineers |
| E030 | Computer Engineers |
| E040 | Electrical Engineers |
| E050 | Environmental Engineers |
| E060 | Industrial Engineers |
| E070 | Mechanical Engineers |
| E080 | Nuclear Engineers |
| E090 | Petroleum/Mining Engineers |
| E100 | Plant Engineers |
| E110 | Quality Control Engineers |
| E120 | Safety Engineers |
| E130 | Other Engineers |
| | |
| **G000** | **GENERAL ADMINISTRATIVE, SECRETARIAL, CLERICAL SUPPORT STAFF** |
| G010 | Administrative Assistants |
| G020 | Office Clerks (General) |
| G030 | Office Clerks (Specialized) |
| G040 | Secretaries |
| G050 | Typists/Wordprocessors |
| G060 | Other General Administrative, Secretarial, and Clerical Support Staff |
| | |
| **L000** | **LABORERS, WORKERS, SERVICE WORKERS** |
| L010 | Firefighters |
| L020 | Food Service Workers |
| L030 | Janitors/Cleaners |
| L040 | Laundry Workers |
| L050 | Material Handlers/Helpers/Laborers (General) |
| L060 | Material Handlers/Helpers/Laborers (Specialized) |
| L070 | Light Vehicle Drivers |
| L080 | Security Guards |
| L090 | Other Laborers/General Service Workers |
| | |
| **M000** | **GENERAL MANAGERS, EXECUTIVES, FIRST-LINE SUPERVISORS, PROGRAM/PROJECT MANAGERS** |
| M010 | First Line Supervisor |
| M020 | General Managers & Executives |
| M030 | Program/Project Managers |
| M040 | Other Managers |

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|---|---|
| **P000** | **ADMINISTRATIVE, OTHER PROFESSIONAL OCCUPATIONS** |
| P010 | Accountants/Auditors |
| P020 | Architects |
| P030 | Buyers, Procurement, Contract Specialists |
| P040 | Communication Specialists |
| P050 | Compliance Inspectors |
| P060 | Computer Systems Analysts |
| P070 | Cost Estimators/Planners/Schedulers |
| P080 | Health Physicists |
| P090 | Industrial Hygienists |
| P100 | Lawyers |
| P110 | Personnel/Labor Relations Specialists |
| P120 | Physicians |
| P130 | Physician Assistants, Nurses, Other Medical Support Occupations |
| P140 | Safeguard, Other Security Specialists |
| P150 | Trainers |
| P160 | Technical Writers/Editors |
| P170 | Other Administrative/Professional Occupations |
| | |
| **R000** | **OPERATORS** |
| R010 | Chemical System Operators |
| R020 | Drillers |
| R030 | Material Moving Equipment Operators |
| R040 | Nuclear Plant Operators |
| R050 | Nuclear Waste Process Operators |
| R060 | Production System Operators |
| R070 | Utility System Operators |
| R080 | Other Operators |
| | |
| **S000** | **SCIENTISTS** |
| S010 | Chemists |
| S020 | Environmental Scientists |
| S030 | Geologists |
| S040 | Life Scientists |
| S050 | Materials Scientists |
| S060 | Mathematicians |
| S070 | Physicists |
| S080 | Social Scientists |
| S090 | Other Scientists |
| | |
| **T000** | **TECHNICIANS** |
| T010 | Computer Operators/Coders |
| T020 | Drafters |
| T030 | Engineering Technicians |
| T040 | Environmental Sciences Technicians |
| T050 | Health Physics Technicians |
| T060 | Industrial Safety/Health Technicians |
| T070 | Instrument/Control Technicians |
| T080 | Laboratory Technicians |
| T090 | Media Technicians |
| T100 | Survey/Map Technicians |
| T110 | Other Technicians |

# COCS GLOSSARY

## M000 GENERAL MANAGERS, EXECUTIVES, FIRST LINE SUPERVISORS AND PROGRAM/PROJECT MANAGERS

General managers, executives, first line supervisors and program/project managers engage in activities related to planning, scheduling, monitoring, coaching, overseeing and evaluating the work of others. Individuals in these occupations also are responsible for controlling and distributing resources within their organizational unit, program or project, and often are involved in coordinating resource allocation efforts across organizational units, programs, or projects.

## M010 FIRST LINE SUPERVISORS

Directly supervise and coordinate activities of production, construction, destruction extraction, transportation, maintenance, and related workers and their helpers. Generally supervise nonexempt individuals engaged in these and related activities. Exclude work leaders who spend 20% or more of their time at tasks similar to those of employees under their supervision and who do not have formal performance appraisal responsibilities. Report them in the occupations which are most closely related to their specific work duties (construction coordinator, foreman, group leader).

## M020 GENERAL MANAGERS AND EXECUTIVES

Manage the general organizational activities of line and staff functions; and plan, organize, direct, coordinate, and formally evaluate the work of other managers, professionals, and other exempt staff. Include in this category executives involved in activities such as setting organizational goals and structures and providing top level guidance and direction for the organization. Exclude individuals who also hold Program/Project Manager responsibilities if more than 80% of their time is spent performing project and/or program management functions.

## M030 PROJECT AND PROGRAM MANAGERS

Spend the greatest proportion of their time in "managerial work" for which a background consistent with that described for engineers and scientists is required. They often do not have formal line authority (e.g., performance appraisal responsibility) over individuals working under their direction. Generally direct and manage large-scale, resource-intensive activities that often cut across formal organizational boundaries and are oriented toward specific technical or DOE programmatic activities. Include individuals who also have general managerial responsibilities if more than 80% of their time is spent performing projected and/or program management functions. Exclude scientists and engineers who lead a task or small to moderate projects in their specialty area and engage in a considerable degree of technical work.

## M040 OTHER MANAGERS

Please specify the occupational title and provide estimates for any managerial occupations not listed above that may be involved in ER/WM activities.

**E000 ENGINEERS**
Engineers apply physical laws and principles for the development and utilization of machines, materials, instruments, structures, processes, and services. Typical specializations are research, design, construction, testing, procurement, production, operations, and sales. Also includes the preparation of drawings, specifications, cost estimates, and participation in verification tests. Engineers may lead other engineers and professionals, technicians, craft workers, and laborers in projects of moderate or small scope which are closely related to their area of technical specialty.
General engineering is not a functional specialty. Hence, it is not categorized here. General engineers should be classified by the area they spend most of their time in. Project engineers should be classified similarly except when they spend a considerable amount (80%) of their time managing. In these cases, they should be classified as project managers.

**E010 CHEMICAL ENGINEERS**
Design equipment and develop processes for manufacturing or decomposing chemicals and related products and materials; utilizing principles and technology of chemistry, physics, mathematics, engineering, and related physical and natural sciences. Analyze procedures, oversee workers, design equipment, and perform tests. Do not include those employees with chemical engineering backgrounds who work primarily or exclusively as environmental engineers.

**E020 CIVIL ENGINEERS**
Plan, design, and direct construction and maintenance of structures and facilities such as buildings, roads, dams, and irrigation and sanitary systems. Include the following job titles: sanitary engineer and transportation engineer. Do not include occupations concerned with the design and construction of hazardous waste sites when those occupations are commonly known as environmental engineers.

**E030 COMPUTER ENGINEERS**
Develop software and efficient computer operating systems. Make extensive use of mathematics, statistics, logic, and computer programming languages (computer programmers, programmers/analysts, computer scientists, software developers, or software engineers).

**E040 ELECTRICAL ENGINEERS**
Apply the laws of electrical energy and the principles of engineering for the generation, transmission, and use of electricity. May design, manufacture, and/or test electrical or electronic systems or components (electronic engineers, product/design engineers when electrical engineering principles are used primarily).

**E050 ENVIRONMENTAL ENGINEERS**
Apply engineering knowledge and technology to identify, solve, or alleviate environmental problems. Include engineers with formal training in civil and chemical engineering who specialize in environmental problems and do not hold the title of

chemical engineer or civil engineer (industrial health engineers, pollution control engineers, environmental research engineers, or waste management engineers).

**E060 INDUSTRIAL ENGINEERS**
Plan utilization of production facilities and personnel to improve efficiency of operations in industrial establishments. Establish work measurement programs, analyze utilization of manpower, and plan space layout of facilities.

**E070 MECHANICAL ENGINEERS**
Plan and design mechanical and/or electromechanical systems or products. Plan and direct engineering personnel in the fabrication of equipment and test-control apparatus (heat-transfer engineers, product design engineers, or test engineers when mechanical engineering principles are used primarily).

**E080 NUCLEAR ENGINEERS**
Design, develop, and test nuclear equipment and systems: monitor testing, operations, and maintenance of nuclear reactors. Study nuclear fuel cycle to define most economical uses of nuclear material and safest means of waste products disposal (nuclear-fuels reclamation engineers, nuclear-criticality engineers, nuclear-fuels, research engineers, or nuclear decontamination engineers.

**E090 PETROLEUM/MINING ENGINEERS**
Apply engineering principles to the extraction of minerals from the earth. Plan and develop mining excavation and well drillings. Accessory techniques include those used in metallurgy and geology. Direct engineering and technical personnel through the drilling, boring, cutting, excavating, and grading processes. Typical specializations are according to the activities or substance involved (geological engineers, engineering geologists, exploration engineers, coal engineers, or mineral extraction engineers).

**E100 PLANT ENGINEERS**
Apply general engineering principals, typically learned on the job, to the fabrication, modification, installation, and maintenance of machinery or equipment. This occupational classification generally refers to non-degreed individuals who have engineering skills gained through experience and tenure (production engineers, maintenance engineers).

**E110 QUALITY CONTROL ENGINEERS**
Plan and direct activities concerned with quality standards for production processes, software goods, or service delivery. May sample outputs or processes, compare with user requirements, procedures, or specifications, and recommend corrective actions (quality assurance engineers/specialists, quality assurance analysts).

**E120 SAFETY ENGINEERS**
Apply knowledge of industrial processes, mechanics, chemistry, psychology, and industrial health and safety laws to prevent or correct injurious environmental conditions

and minimize effects of human traits that create hazards to life and property or reduce worker morale and efficiency (fire protection engineers/specialists).

**E130 OTHER ENGINEERS**
Please specify the occupational title and provide estimates for any engineering occupations not listed above that may be involved in ER/WM activities.

**S000 SCIENTISTS**
Scientists apply the scientific method to investigate the laws of natural, physical, and social phenomena and their application to problems in such fields as engineering, medicine, production, and environment. Scientists may lead scientists and other professionals, technicians, craft workers, and laborers in projects of moderate or small scope closely related to their area of technical specialty.

**S010 CHEMISTS**
Conduct research, analysis, synthesis, and experimentation on chemical compounds for purposes of developing new processes, compounds, and analytical techniques (process chemists, hazardous materials chemists, geochemists).

**S020 ENVIRONMENTAL SCIENTISTS**
Use knowledge of principles and concepts of various scientific and engineering disciplines to develop methods of studying the environment or abating or controlling sources of environmental pollutants (meteorologists, oceanographers, soil scientists, range managers, and ecologists).

**S030 GEOLOGISTS**
Study the composition, structure, and physical and biological history of the earth's crust. Apply knowledge of chemistry, physics, biology, hydrology, and mathematics to explain these phenomena and to help locate mineral, geothermal, and petroleum deposits and underground water resources or track their movement (hydrologists, hydrogeologists, and seismologists).

**S040 LIFE SCIENTISTS**
Study the reproduction, growth and development, structure, life processes, behavior, chemical processes, and classification and organization of living organisms. Apply these findings to prevent disease, maintain and promote health in plant and animal life (biologists, botanists, entomologists, physiologists, biochemists, zoologists, or cytologists).

**S050 MATERIALS SCIENTISTS**
Conduct scientific studies to understand, characterize, and develop materials leading to potential uses for the benefit of science and emerging technologies (metallurgists, when not engineering oriented).

**S060 MATHEMATICIANS**
Conduct research in fundamental mathematics and in application of mathematical techniques to science, management and other fields (applied mathematicians, research mathematicians, statisticians, and operations researchers).

**S070 PHYSICISTS**
Conduct research into phases of physical phenomena, develop theories and laws on basis of observation and experiments, and devise methods to apply laws and theories of physics to industry, medicine, and other fields (nuclear physicist, experimental physicist, or atomic physicist).

**S080 SOCIAL SCIENTISTS**
Conduct research on human society and its characteristic elements, such as origin or age, and with economic and social relations and institutions which characterize membership in an organized community (economists, psychologists, sociologists, political scientists, anthropologists).

**S090 OTHER SCIENTISTS**
Please specify and provide estimates for scientific occupations not listed above that may be involved in ER/WM activities.

**P000 PROFESSIONAL OCCUPATIONS**
Administrative and professional other occupations are generally found in infrastructure support and/or staff organizations and functions. Individuals engaged in these occupations conduct activities such as providing services and professional advice; inspecting operations and facilities; and maintaining computer, communications, and financial systems. These individuals are often indirect labor; however, do not include individuals working in infrastructure support or staff functions if their primary work activities make it impossible to classify them into occupations in the other eight families. Also, do not include administrative assistants (see General Administrative Secretarial and Clerical Support Staff).

**P010 ACCOUNTANTS AND AUDITORS**
Examine, analyze, and interpret accounting records for the purpose of giving advice or preparing statements and installing or advising on systems of recording costs or other financial and budgetary data (business managers, financial analysts, finance auditors, budget analysts).

**P020 ARCHITECTS**
Develop plans, blueprints, schematics, and other documents related to the construction of office buildings, factories, and other structures. Plan and design development of land areas. May specialize in a particular type of structure or project.

**P030 BUYERS, PROCUREMENT, AND CONTRACTING SPECIALISTS**
Develop, negotiate, and administer contracts, subcontracts, and buying agreements. Do not include individuals whose primary responsibilities include providing general administrative and project management support.

**P040 COMMUNICATIONS SPECIALISTS**
Communicate with internal and external individuals, groups, or organizations by writing or selecting publicity material, releasing information through various communications channels including the media, preparing and arranging displays, making speeches, and conducting interviews and workshops. Include individuals who develop and support public involvement plans for various activities (public involvement specialists, public relations specialists, freedom of information (FOI) specialists).

**P050 COMPLIANCE INSPECTORS**
Enforce and advise on health, safety, and other regulations such as those pertaining to people, animals, plant life, products and establishments (environment, safety and health ES&H) auditors, professional lab safety inspectors).

**P060 COMPUTER SYSTEMS ANALYSTS**
Analyze scientific, engineering, business and other technical problems and formulate mathematical models of problems to programmable form for application to electronic data-processing systems (local area network [LAN] managers, network analysts).

**P070 COST ESTIMATES AND PLANNERS AND SCHEDULERS**
Develop and examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Examine requests for budget revisions, recommend approval or denial, and draft correspondence. Provide technical assistance in the preparation of budgets. Duties may also involve coordinating and expediting the flow of work and materials within or between departments of an establishment according to production or other operational schedules.

**P080 HEALTH PHYSICISTS**
Recommend and develop policies and procedures related to health physics issues. Develop, implement, and evaluate research, training, and monitoring programs to protect all personnel.

**P090 INDUSTRIAL HYGIENISTS**
Conduct health programs to recognize, eliminate, and control occupational health hazards and diseases. Evaluate exposure to ionizing and non-ionizing radiation and recommend measures to insure maximum employee protection. Prepare reports, participate in educational meetings, and collaborate with occupational physicians.

**P100 LAWYERS**
Give advice to individuals or business enterprises on legal problems, draw up legal documents; examine legal data to determine advisability of defending or prosecuting lawsuits. May represent client in court, or before quasi-judicial or administrative agencies

of government. May specialize in a single area of law. May represent individual citizens in lawsuits and other legal matters.

**P110 PERSONNEL AND LABOR RELATIONS SPECIALISTS**
Primarily implement and administer management policies related to personnel administration and labor relations by performing activities such as representing management or labor in collective bargaining procedures: participating in a program of recruitment, selection, placement, training, welfare, safety, compensation, and promotion; conducting job analyses to provide occupational information; and interviewing and counseling job applicants and employees to determine suitability for employment, rehabilitation, and other employment development programs. Do not include individuals whose primary responsibilities are to develop and/or deliver technical training (see Trainers) (training coordinators, employee relations specialists, EEO specialists).

**P120 PHYSICIANS**
Conduct activities involving diagnosis, prevention, and treatment of human diseases and injuries. Includes conducting medical examinations, prescribing and giving treatment, and performing surgical operations. May conduct research into the causes, transmissions, and control of disease and other ailments.

**P130 PHYSICIAN ASSISTANTS, NURSES, AND OTHER MEDICAL SUPPORT OCCUPATIONS**
Render a broad range of medical services including management of illnesses, preventive and in-patient emergency services, and personal and family counseling. Includes all non-MD medical professionals (nurses, paramedics, emergency medical technicians).

**P140 SAFEGUARDS AND OTHER SECURITY SPECIALISTS**
Develop, conduct, monitor, and/or maintain security-related programs. Do not include individuals whose primary responsibilities involve security guard-related activities.

**P150 TRAINERS**
Teach, instruct, and train individuals. Include individuals whose primary responsibilities involve the development and/or delivery of technical training courses. Also, include individuals who may be on rotational or temporary assignments from line organizations if training responsibilities account for 80% or more of work for at least a calendar year (technical trainers).

**P160 TECHNICAL WRITERS AND EDITORS**
Write or edit technical materials, such as equipment manuals, appendices, and operating and maintenance instructions. May oversee the preparation of illustrations, photographs, diagrams, charts, and assist in layout work. Develop, write, and edit material for reports, manuals, and related technical and administrative publications.

**P170 OTHER ADMINISTRATIVE AND PROFESSIONAL OTHER OCCUPATIONS**

Please specify and provide estimates for administrative and professional other occupations not listed above that may be involved in ER/WM activities.

**G000 GENERAL ADMINISTRATIVE, SECRETARIAL, AND CLERICAL SUPPORT STAFF**

General administrative, secretarial, and clerical support staff generally provides office support services to managerial, scientific, engineering, and professional staff throughout the organization. Primary activities include typing, word processing, making appointments, answering phones, and serving as a central point of contact for information flow within and across organizations.

**G010 ADMINISTRATIVE ASSISTANTS**

Provide specialized administrative assistance to individuals engaged in managerial, professional, engineering, and scientific activities. Often provide assistance by tracking budgets for project managers, composing periodic project or business reports, providing business and technical information to project members and staff, and serving as a central point of contact for business and project activities. Also, provide routine information to other professionals and clients regarding business and technical activities (project administrator, project clerk).

**G020 OFFICE CLERKS (GENERAL)**

Conduct varied and diverse general clerical tasks. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of bookkeeping, typing, stenography, office machine operation, and filing. Do not include individuals with specialized clerical responsibilities (see Office Clerks, Specialized).

**G030 OFFICE CLERKS (SPECIALIZED)**

Conduct specialized, relatively uniform, and often repetitive clerical activities generally in support of the primary function of their organizational unit (finance clerks, legal clerks, medical records clerks, stock clerks, procurement clerks, shipping and receiving clerks, mail clerks).

**G040 SECRETARIES**

Provide support to individuals engaged in managerial, professional, engineering, and scientific activities in the form of clerical work and minor administrative and business detail by scheduling appointments, giving information to callers, taking dictation, composing and typing routine correspondence (using a typewriter or word processor), reading and routing incoming mail, and filing correspondence and other records. May perform various other assigned clerical duties.

**G050 TYPISTS AND WORD PROCESSORS**
Use typewriters or word processing equipment to type letters, reports, forms, or other straight copy material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned.

**G060 OTHER GENERAL ADMINISTRATIVE, SECRETARIAL, AND CLERICAL SUPPORT STAFF**
Please specify and provide estimates for general administrative, secretarial, and clerical support staff occupations not listed above that may be involved in ER/WM activities.

**T000 TECHNICIANS**
Occupations which involve the application of scientific, technical, or engineering principles to the solution of basic problems; the repair, maintenance, or basic operation of tools or equipment; or the collection and/or basic analysis of data via field sampling and laboratory analysis. Technicians apply a high degree of knowledge, skill, and decision making under the general supervision of a scientist, engineer, or other professional.

**T010 COMPUTER OPERATORS/CODERS**
Convert the statement of a problem to detailed flow charts and/or coded computer language for solution by automatic data processing equipment. Generally work under the instruction of a computer scientist or computer analyst. May also use general knowledge of computers to assist in the operation of a computer system.

**T020 DRAFTERS**
Prepare clear, complete, and accurate working plans and detail drawings from rough or detailed sketches or notes for engineering or manufacturing purposes, according to specified dimensions. May draft using blueprints or computers (CAD operators, designers, engineering drafters, architectural assistants).

**T030 ENGINEERING TECHNICIANS**
Apply basic engineering and scientific principles and technical skills, largely in the field, to assist engineers and scientists. May obtain field samples and assist in field tests, perform basic analytical and calibration activities, or perform maintenance and repair. Do not include instrument and control or environmental sciences technicians (quality assurance technicians, field technicians, quality control technicians, engineering assistants).

**T040 ENVIRONMENTAL SCIENCES TECHNICIANS**
Conduct tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water, and soil. Use knowledge of agriculture, chemistry, meteorology, and engineering principles as well as applied technologies. May work under the supervision of civil, chemical, or environmental engineers or physical or earth scientists (samplers, environmental samplers).

**T050 HEALTH PHYSICS TECHNICIANS**
Monitor personnel, plant facilities, and work environments to detect radioactive contamination using radiation detectors and other instruments. Assess worker exposure, operating practices, and material contamination in hazardous waste disposal areas. May work with a health physicist to determine exposure limits of personnel and decontamination recommendations (radiation protection specialists, radiation monitors, and hot cell technicians).

**T060 INDUSTRIAL SAFETY AND HEALTH TECHNICIANS**
Assist in safety and health activities to evaluate and control environmental hazards. Test noise and air levels, maintain and calibrate instruments, administer hearing tests, and monitor emergency action plans. May assist in the investigation of accidents and preparation of accident reports (environmental protection specialist).

**T070 INSTRUMENT AND CONTROL TECHNICIANS**
Apply electronics, physical science, and mathematical knowledge to fabricate, repair, test, or modify analog or electronic measurement, calibration, or calculating devices (electronics technician, computer repair technician).

**T080 LABORATORY TECHNICIANS**
Conduct chemical and physical tests, largely in the laboratory, to assist scientists and engineers in making qualitative and quantitative analyses for work involving experimental, theoretical, or practical application of chemistry and related sciences (science technician, chemical technologist, technical specialist).

**T090 MEDIA TECHNICIANS**
Use principles of communication, graphic arts, visual illustration, and broadcasting/print media to design communication and public relations vehicles such as brochures, reports, and videos (photographer, illustrator, graphic artist, video technician, video editor).

**T100 SURVEY AND MAPPINGTECHNICIANS**
Perform surveying and mapping duties to obtain data pertaining to angles, elevations, points, and contours used for construction, mapmaking information from field notes using reference tables (civil engineering technician, surveyor).

**T110 OTHER TECHNICIANS**
Please specify and provide estimates for technician occupations not listed above that may be involved in ER/WM activities.

**C000 CRAFTS**
Crafts occupations are primarily involved in constructing, destructing, altering, and maintaining buildings, bridges, pipelines, and other projects. Crafts occupations are also involved in fabricating materials and fabricating and maintaining equipment and machinery. Individuals in these occupations are often union represented and include skilled and semi-skilled craft designations.

**C010 CARPENTERS**
Erect and repair wooden structures; install fixtures, floors, and drywall using saws, planes, hammers, and other carpentry tools.

**C020 ELECTRICIANS**
Erect, install, and repair wiring in buildings and equipment for electrical transmission and distribution.

**C030 HEATING, AIRCONDITIONING, AND REFRIGERATION MECHANICS (HVAC)** Install, repair, and maintain the operating condition of heating, air-conditioning, and refrigeration systems (production sheet metal workers, field sheet metal workers).

**C040 MACHINISTS**
Precision shape metal parts or products by milling, turning, planning, abrading, boring, chipping, sawing, and shaving with a variety of metal-working machines (tool and die makers).

**C050 MASONS**
Lay materials such as brick, structural tile, concrete, cinder, glass, gypsum, and terra cotta block to construct or repair walls, partitions, arches, sewers, and other structures.

**C060 MILLWRIGHTS**
Install, repair, and maintain complex industrial machinery and systems (industrial machinery repair).

**C070 PAINTERS**
Apply paint and related materials to the surfaces of structures or equipment using brushes or spray guns.

**C080 PLUMBERS AND PIPEFITTERS**
Install and repair plumbing and related fixtures and fittings for water, gas steam, or similar systems.

**C090 STRUCTURAL AND METAL WORKERS**
Raise, position, and join prefabricated structural metal parts by bolting, screwing, riveting, or welding to form or repair frameworks or structures for buildings, bridges, tanks, or similar works (metal construction workers, steelworkers).

**C100 VEHICLE AND MOBILE EQUIPMENT MECHANICS**
Repair and maintain the operating condition of light and heavy mobile equipment, automotive vehicles, trucks, and buses (light equipment mechanics, heavy equipment mechanics, vehicle mechanics, and automotive mechanics).

**C110 WELDERS**
Operate machines and equipment to join or bond together parts of fabricated metal products and metal components such as panels, frames, yokes, tubes, pipes, and containers according to specifications and blueprints.

**C120 OTHER CRAFTS**
Please specify and provide estimates for craft occupations not listed above that may be involved in ER/WM activities.

**R000 OPERATORS**
Operators control and operate vehicles, machines, systems, equipment, and plants for the purposes of producing, destroying, moving, and storing materials and supplies. These occupations require a high degree of precision in the tasks performed and the ability to interpret detailed instructions and specifications. The time needed to achieve proficiency in these occupations is often several years.

**R010 CHEMICAL SYSTEM OPERATORS**
Operate and control equipment, systems, and plants for the purposes of processing, altering, or decomposing chemicals and/or chemical compounds (hazardous waste process operators, chemical plant operators).

**R020 DRILLERS**
Operate a variety of drills to tap sub-surface water and salt deposits to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction.

**R030 MATERIAL MOVING EQUIPMENT OPERATORS**
Operate mobile equipment designed to move or transport materials such as building materials, earth, and wastes. Material moving may also include operation of equipment such as conveyors, cranes, and hoists (semi-trailer driver, bulldozer operator, crane operator, earth mover operator, backhoe operator, heavy equipment operator).

**R040 NUCLEAR PLANT OPERATORS**
Operate and control nuclear reactors that produce steam for generation of electric power or nuclear materials. May also coordinate operation of auxiliary equipment.

**R050 NUCLEAR WASTE PROCESS OPERATORS**
Operate and control equipment, plants, and systems to decontaminate, neutralize, and dispose of radioactive waste and mixed waste including liquids collected from chemical processing operations. Test samples for radioactivity and records data. May monitor panel board to control operation of recovery systems that treat, store, or dispose of radioactive waste.

**R060 PRODUCTION SYSTEMS OPERATORS**
Operate or tend presses, vacuum, or blow-molding machines, furnaces, or glass-molding machines to fabricate parts. Include also skilled assemblers who are not engineering or

laboratory technicians. Do not include skilled machine tool workers (machinists) or individuals who perform semi or low skilled assembly tasks (handlers, helpers, and laborers, general).

**R070 UTILITIES OPERATORS**
Operate and control equipment, plants, and systems to produce and ensure delivery of power, water, steam, gas, and other utility services (gas plant operators, power plant operators, steam plant operators, electricity generation station operators, and water plant operators).

**R080OTHER OPERATORS**
Please specify and provide estimates for operator occupations not listed above that may be involved in ER/WM activities.

**L000 LABORERS AND GENERAL SERVICE WORKERS**
Laborers and general service workers are a combination of two general categories of workers. Laborers encompass all occupations in which manual labor, often heavy, characterizes the majority of work activities. Laborers may work on or around machines and other equipment; however, their primary responsibilities do not include operating or controlling such equipment. Laborers may also occasionally use general hand tools in accomplishing tasks. Service workers are a general category of workers that tend to encompass those occupations involved in general infrastructure support activities. They are often in facilities organizations and their primary duties revolve around conducting various activities to ensure that services are provided to other workers and that site facilities are clean and safe from security and/or fire hazards.

**L010 FIREFIGHTERS**
Control and extinguish fires, protect life, and property from fire hazards.

**L020 FOOD SERVICE WORKERS**
Prepare and serve food and beverages (cooks, cafeteria workers, food servers, and kitchen workers).

**L030 JANITORS AND CLEANERS**
Primarily clean building interiors and equipment, perform minor maintenance, and provide other related services.

**L040 LAUNDRY WORKERS**
Operate or tend washing or dry cleaning machines to clean industrial clothing and other cloth articles (may include contaminated articles).

**L050 HANDLERS, HELPERS, AND LABORERS (GENERAL)**
Perform non-machine tasks, generally of a routine nature. These workers help the technicians, operators, and crafts workers covered in other sections. Although they do not operate or tend the machinery or equipment directly, these workers assist in the work of the establishment by machine feeding and off-bearing, moving materials (manually), or

loading and unloading. They may also perform routine (semi or low skill) assembly tasks. Do not include individuals whose primary responsibilities involve handling hazardous, mixed, or nuclear wastes.

**L060 HANDLERS, HELPERS, AND LABORERS (SPECIALIZED)**
Workers whose duties and responsibilities are similar to general materials handlers, helpers, and laborers, except that primary responsibilities involve working with hazardous, mixed, or nuclear wastes and generally require specialized certification training (certified waste handler).

**L070 LIGHT VEHICLE DRIVERS**
Operate vehicles used to transport people or materials (vehicle drivers, bus drivers, truck drivers, delivery drivers).