

IDENTIFYING ESSENTIAL CRITICAL INFRASTRUCTURE WORKERS

Essential workers are defined as workers who conduct a range of services that are essential to continued critical operations, maintaining and repairing support, operating call centers, and management, among others. The industries they support represent medical and healthcare, telecommunications, information technology, defense, food and agriculture, transportation and logistics, energy, water and wastewater, law enforcement, and public works.

Essential Critical Infrastructure Workers



HEALTHCARE / PUBLIC HEALTH

- Caregivers
- Workers in other medical facilities
- Manufacturers, technicians, logistics and warehouse operators, and distributors of
 medical equipment, personal protective equipment (PPE), medical gases,
 pharmaceuticals, blood and blood products, vaccines, testing materials, laboratory
 supplies, cleaning, sanitizing, disinfecting or sterilization supplies, and tissue and paper
 towel products
- Public health / community health workers
- Behavioral health workers (including mental and substance use disorder) responsible
 for coordination, outreach, engagement, and treatment to individuals in need of mental health
 and/or substance use disorder services.
- Hospital and laboratory personnel (including accounting, administrative, admitting and discharge, engineering, epidemiological, source plasma and blood donation, food service, housekeeping, medical records, information technology and operational technology, nutritionists, sanitarians, respiratory therapists, etc.).
- Blood and plasma donors and the employees of the organizations that operate and manage related activities
- Workers that manage health plans, billing, and health information, who cannot practically work remotely
- Workers who conduct community-based public health functions, conducting epidemiologic surveillance, compiling, analyzing and communicating public health information, who cannot practically work remotely
- Workers performing cybersecurity functions at healthcare and public health facilities, who cannot
 practically work remotely
- Workers providing COVID-19 testing; Workers that perform critical clinical research needed for COVID-19 response.



Essential Critical Infrastructure Workforce

- Workers performing security, incident management, and emergency operations functions at or on behalf of healthcare entities including healthcare coalitions, who cannot practically work remotely
- Workers who support food, shelter, and social services, and other necessities of life for economically disadvantaged or otherwise needy individuals, such as those residing in shelters
- Pharmacy employees necessary for filling prescriptions
- Workers performing mortuary services, including funeral homes, crematoriums, and cemetery workers
- Workers who coordinate with other organizations to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/behavioral health services to the family members, responders, and survivors of an incident

DEFENSE INDUSTRIAL BASE

- Workers who support the essential services required to meet national security commitments to the federal government and U.S. Military. These individuals, include but are not limited to, aerospace; mechanical and software engineers, manufacturing/production workers; IT support; security staff; security personnel; intelligence support, aircraft and weapon system mechanics and maintainers
- Personnel working for companies, and their subcontractors, who perform under contract to the Department of Defense providing materials and services to the Department of Defense, and government-owned/contractor-operated and government-owned/government-operated facilities



LAW ENFORCEMENT, PUBLIC SAFETY, FIRST RESPONDERS

- Includes front line and management, personnel include emergency management, law enforcement, Emergency Management Systems, fire, and corrections, search and rescue, tactical teams including maritime, aviation, and canine units.
- Fusion Center employees
- Fire Mitigation Activities
- Hazardous material responders and hazardous devices teams, from government and the private sector.
- Emergency Medical Technicians
- Public Safety Answering Points and 911 call center employees
- Workers including contracted vendors -- who maintain digital systems infrastructure supporting law enforcement and emergency service operations.
- Private security, private fire departments, and private emergency medical services personnel.
- County workers responding to abuse and neglect of children, elders and dependent adults.



- Workers who are needed to process and maintain systems for processing financial transactions and services
- Workers who are needed to provide consumer access to banking and lending services, including ATMs, and to move currency and payments (e.g. armored cash carriers).
- Workers who support financial operations, such as those staffing data and security operations centers





Essential Critical Infrastructure Workforce

FOOD AND AGRICULTURE

- Workers supporting groceries, pharmacies, and other retail that sells food and beverage
 products, including but not limited to Grocery stores, Corner stores and convenience
 stores, including liquor stores that sell food, Farmers' markets, Food banks, Farm and
 produce stands, Supermarkets, Similar food retail establishments, Big box stores that sell
 groceries and essentials
- Restaurant carry-out and quick serve food operations including food preparation, carryout and delivery food employees
- Food manufacturer employees and their supplier employees—to include those employed in food processing (packers, meat processing, cheese plants, milk plants, produce, etc.) facilities; livestock, poultry, seafood slaughter facilities; pet and animal feed processing facilities; human food facilities producing by-products for animal food; beverage production facilities; and the production of food packaging
- Farm workers to include those employed in animal food, feed, and ingredient production, packaging, and distribution; manufacturing, packaging, and distribution of veterinary drugs; truck delivery and transport; farm and fishery labor needed to produce our food supply domestically
- Farm workers and support service workers to include those who field crops; commodity inspection; fuel ethanol facilities; storage facilities; and other agricultural inputs
- Employees and firms supporting food, feed, and beverage distribution (including curbside distribution and deliveries), including warehouse workers, vendor-managed inventory controllers, blockchain managers, distribution
- Workers supporting the sanitation of all food manufacturing processes and operations from wholesale to retail
- Company cafeterias in-plant cafeterias used to feed employees
- Workers in food testing labs in private industries and in institutions of higher education
- Workers essential for assistance programs and government payments
- Workers supporting cannabis retail and dietary supplement retail
- Employees of companies engaged in the production of chemicals, medicines, vaccines, and other substances used by the food and agriculture industry, including pesticides, herbicides, fertilizers, minerals, enrichments, and other agricultural production aids
- Animal agriculture workers to include those employed in veterinary health; manufacturing and
 distribution of animal medical materials, animal vaccines, animal drugs, feed ingredients, feed,
 and bedding, etc.; transportation of live animals, animal medical materials; transportation of
 deceased animals for disposal; raising of animals for food; animal production operations; slaughter
 and packing plants and associated regulatory and government workforce
- Workers who support the manufacture and distribution of forest products, including, but not limited to timber, paper, and other wood products
- Employees engaged in the manufacture and maintenance of equipment and other infrastructure necessary to agricultural production and distribution

WATER AND WASTEWATER

Employees needed to operate and maintain drinking water and wastewater/drainage infrastructure, including:

- Operational staff at water authorities
 - Operational staff at community water systems
 - Operational staff at wastewater treatment facilities
 - Workers repairing water and wastewater conveyances and performing required sampling or monitoring
 - Operational staff for water distribution and testing





Essential Critical Infrastructure Workforce

- Operational staff at wastewater collection facilities
 - Operational staff and technical support for SCADA Control systems
 - Chemical disinfectant suppliers for wastewater and personnel protection
 - Workers that maintain digital systems infrastructure supporting water and wastewater operations

ENERGY

- Electricity industry:
 - Workers who maintain, ensure, or restore the generation, transmission, and distribution
 of electric power, including call centers, utility workers, reliability engineers and fleet
 maintenance technicians
 - Workers needed for safe and secure operations at nuclear generation
 - Workers at generation, transmission, and electric blackstart facilities
 - Workers at Reliability Coordinator (RC), Balancing Authorities (BA), and primary and backup Control Centers (CC), including but not limited to independent system operators, regional transmission organizations, and balancing authorities
 - Mutual assistance personnel
 - IT and OT technology staff for EMS (Energy Management Systems) and Supervisory Control and Data
 - Acquisition (SCADA) systems, and utility data centers; Cybersecurity engineers; cybersecurity risk management
 - Vegetation management crews and traffic workers who support
 - Environmental remediation/monitoring technicians
 - Instrumentation, protection, and control technicians
- Petroleum workers:
 - Petroleum product storage, pipeline, marine transport, terminals, rail transport, road transport
 - Crude oil storage facilities, pipeline, and marine transport
 - Petroleum refinery facilities
 - Petroleum security operations center employees and workers who support emergency response services
 - Petroleum operations control rooms/centers
 - Petroleum drilling, extraction, production, processing, refining, terminal operations, transporting, and retail for use as end-use fuels or feedstocks for chemical manufacturing
 - Onshore and offshore operations for maintenance and emergency response
 - Retail fuel centers such as gas stations and truck stops, and the distribution systems that support them.
 - Natural and propane gas workers:
 - · Natural gas transmission and distribution pipelines, including compressor stations
 - Underground storage of natural gas
 - Natural gas processing plants, and those that deal with natural gas liquids
 - · Liquefied Natural Gas (LNG) facilities
 - Natural gas security operations center, natural gas operations dispatch and control rooms/centers natural gas emergency response and customer emergencies, including natural gas leak calls
 - Drilling, production, processing, refining, and transporting natural gas for use as end-use fuels, feedstocks for chemical manufacturing, or use in electricity generation





Essential Critical Infrastructure Workforce

- Propane gas dispatch and control rooms and emergency response and customer emergencies, including propane leak calls
- Propane gas service maintenance and restoration, including call centers
 - Processing, refining, and transporting natural liquids, including propane gas, for use as end-use fuels or feedstocks for chemical manufacturing
- Propane gas storage, transmission, and distribution centers

TRANSPORTATION AND LOGISTICS

- Employees supporting or enabling transportation functions, including dispatchers, maintenance and repair technicians, warehouse workers, truck stop and rest area workers, and workers that maintain and inspect infrastructure (including those that require crossborder travel)
- Employees of firms providing services that enable logistics operations, including cooling, storing, packaging, and distributing products for wholesale or retail sale or use.
- Mass transit workers
- Taxis, transportation services including Transportation Network Companies, and delivery services including Delivery Network Companies
- Workers responsible for operating dispatching passenger, commuter and freight trains and maintaining rail infrastructure and equipment
- Maritime transportation workers port workers, mariners, equipment operators
- Truck drivers who haul hazardous and waste materials to support critical infrastructure, capabilities, functions, and services
- Automotive repair and maintenance facilities
- Manufacturers and distributors (to include service centers and related operations) of packaging materials, pallets, crates, containers, and other supplies needed to support manufacturing, packaging staging and distribution operations
- Postal and shipping workers, to include private companies
- Employees who repair and maintain vehicles, aircraft, rail equipment, marine vessels, and the
 equipment and infrastructure that enables operations that encompass movement of cargo and
 passengers
- Air transportation employees, including air traffic controllers, ramp personnel, aviation security, and aviation management
- Workers who support the maintenance and operation of cargo by air transportation, including flight crews, maintenance, airport operations, and other on- and off- airport facilities workers

CRITICAL MANUFACTURING

 Workers necessary for the manufacturing of materials and products needed for medical supply chains, transportation, energy, communications, food and agriculture, chemical manufacturing, nuclear facilities, the operation of dams, water and wastewater treatment, emergency services, and the defense industrial base.

COMMUNICATIONS AND INFORMATION TECHNOLOGY

Communications:

- Maintenance of communications infrastructure- including privately owned and maintained communication systems- supported by technicians, operators, call-centers, wireline and wireless providers, cable service providers, satellite operations, undersea cable landing stations, Internet Exchange Points, and manufacturers and distributors of communications equipment
- Workers who support radio, television, and media service, including, but not limited to front line news reporters, studio, and technicians for newsgathering and reporting





Essential Critical Infrastructure Workforce

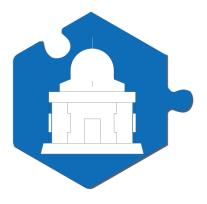
- Workers at Independent System Operators and Regional Transmission Organizations, and Network Operations staff, engineers and/or technicians to manage the network or operate facilities
- Engineers, technicians and associated personnel responsible for infrastructure construction and restoration, including contractors for construction and engineering of fiber optic cables
- Installation, maintenance and repair technicians that establish, support or repair service as needed
- Central office personnel to maintain and operate central office, data centers, and other network office facilities
- Customer service and support staff, including managed and professional services as well as remote
 providers of support to transitioning employees to set up and maintain home offices, who interface
 with customers to manage or support service environments and security issues, including payroll,
 billing, fraud, and troubleshooting
- Dispatchers involved with service repair and restoration

Information Technology

- Workers who support command centers, including, but not limited to Network Operations Command Center, Broadcast Operations Control Center and Security Operations Command Center
- Data center operators, including system administrators, HVAC & electrical engineers, security personnel, IT managers, data transfer solutions engineers, software and hardware engineers, and database administrators
- Client service centers, field engineers, and other technicians supporting critical infrastructure, as
 well as manufacturers and supply chain vendors that provide hardware and software, and
 information technology equipment (to include microelectronics and semiconductors) for critical
 infrastructure
- Workers responding to cyber incidents involving critical infrastructure, including medical
 facilities, SLTT governments and federal facilities, energy and utilities, and banks and financial
 institutions, and other critical infrastructure categories and personnel
- Workers supporting the provision of essential global, national and local infrastructure for computing services (incl. cloud computing services), business infrastructure, web-based services, and critical manufacturing
- Workers supporting communications systems and information technology used by law enforcement, public safety, medical, energy and other critical industries
- Support required for continuity of services, including janitorial/cleaning personnel

OTHER COMMUNITY-BASED GOVERNMENT OPERATIONS AND ESSENTIAL FUNCTIONS

- Critical government workers, as defined by the employer and consistent with Continuity of Operations Plans and Continuity of Government plans.
- County workers responsible for determining eligibility for safety net benefits
- The Courts, consistent with guidance released by the California Chief Justice
- Workers to ensure continuity of building functions
- Security staff to maintain building access control and physical security measures
- Elections personnel
- Federal, State, and Local, Tribal, and Territorial employees who support Mission Essential Functions and communications networks
- Trade Officials (FTA negotiators; international data flow administrators)
- Weather forecasters
- Workers that maintain digital systems infrastructure supporting other critical government operations



Essential Critical Infrastructure Workforce

- Workers at operations centers necessary to maintain other essential functions
- Workers who support necessary credentialing, vetting and licensing operations for transportation workers
- Workers who are critical to facilitating trade in support of the national, state, and local emergency response supply chain
- Workers supporting public and private childcare establishments, pre-K establishments, K-12 schools, colleges, and universities for purposes of distance learning, provision of school meals, or care and supervision of minors to support essential workforce across all sectors

PUBLIC WORKS

- Workers who support the operation, inspection, and maintenance of essential dams, locks and levees
- Workers who support the operation, inspection, and maintenance of essential public
 works facilities and operations, including bridges, water and sewer main breaks, fleet
 maintenance personnel, construction of critical or strategic infrastructure, traffic signal
 maintenance, emergency location services for buried utilities, maintenance of digital
 systems infrastructure supporting public works operations, and other emergent issues
- Workers such as plumbers, electricians, exterminators, and other service providers
 who provide services that are necessary to maintaining the safety, sanitation, and
 essential operation of residences.
- Support, such as road and line clearing, to ensure the availability of needed facilities, transportation, energy and communications Support to ensure the effective removal, storage, and disposal of residential and commercial solid waste and hazardous waste.



CHEMICAL

- Workers supporting the chemical and industrial gas supply chains, including workers
 at chemical manufacturing plants, workers in laboratories, workers at distribution
 facilities, workers who transport basic raw chemical materials to the producers of
 industrial and consumer goods, including hand sanitizers, food and food additives,
 pharmaceuticals, textiles, and paper products.
- Workers supporting the safe transportation of chemicals, including those supporting tank truck cleaning facilities and workers who manufacture packaging items
- Workers supporting the production of protective cleaning and medical solutions, personal protective equipment, and packaging that prevents the contamination of food, water, medicine, among others essential products
- Workers supporting the operation and maintenance of facilities (particularly those with high risk chemicals and/ or sites that cannot be shut down) whose work cannot be done remotely and requires the presence of highly trained personnel to ensure safe operations, including plant contract workers who provide inspections
- Workers who support the production and transportation of chlorine and alkali manufacturing, single-use plastics, and packaging that prevents the contamination or supports the continued manufacture of food, water, medicine, and other essential products, including glass container manufacturing

HAZARDOUS MATERIALS

- Workers at nuclear facilities, workers managing medical waste, workers managing waste from pharmaceuticals and medical material production, and workers at laboratories processing test kits
- Workers who support hazardous materials response and cleanup
- Workers who maintain digital systems infrastructure supporting hazardous materials management operations



