

Section-by-Section Review of CISA 2.0 vs. 1.0

See notes below.

Generally speaking, emphasis has been placed on the characterization of this document as **advisory** in nature in the opening section. Also, many of the bullets within each section were further refined with additional detail that is not fully captured in this document.

Healthcare / Public Health

- Added optometrists and chiropractors to list of healthcare providers and caregivers.
- Added workers in nursing care facilities and retail facilities specializing in medical goods and supplies to list of other medical and biomedical facilities.
- Added health materials and parts suppliers, medical equipment test and repair companies, and distributors of isolation barriers, materials used in radioactive drugs, and dietary supplements.
- Added information technology workers at healthcare and public health facilities.
- Clarified mortuary services to include funeral, cremation, burial, cemetery, and related services, including coffin makers.

Law Enforcement

- Added “private and voluntary personnel” to those engaged in emergency management that are considered essential.
- Added Public Safety Answering Points.
- Added the following types of workers:
 - Workers supporting the manufacturing of safety equipment and uniforms for law enforcement, public safety personnel, and first responder.
 - Workers supporting the operation of firearm or ammunition product manufacturers, retailers, importers, distributors, and shooting ranges.
 - Public agency workers responding to abuse and neglect of children, elders, and dependent adults.
 - Workers who support weather disaster / natural hazard mitigation and prevention activities.
 - Security staff to maintain building access control and physical security measures.
- Modified workers “who maintain digital systems infrastructure” to workers “who maintain, manufacture, or supply equipment and services supporting law enforcement, emergency service, and response operations.”

Food and Agriculture

- Added the following types of workers:
 - Workers supporting convenience stores, animal/pet food and pet supply, and retail customer support service and IT support staff for online orders, pickup and delivery.
 - Agribusiness support services.
 - Farm supplier employees.
 - Workers in animal diagnostic laboratories.
 - Employees of companies that engage in storage, transport, and distribution of substances used by food and agriculture industry, added seeds to list of those substances.
- Added pest control of food manufacturing processes and operations.

- Added transportation supporting animal agricultural industries, including movement of animal medical and reproductive supplies and materials, animal vaccines, animal drugs, feed ingredients, feed, and bedding, live animals, animal by-products, and deceased animals for disposal.

Energy

Added the following to the opening segment of the Energy section:

- Workers supporting the energy sector, regardless of the energy source (including but not limited to nuclear, fossil, hydroelectric, or renewable), segment of the system, or infrastructure the worker is involved in, or who are needed to monitor, operate, engineer, and maintain the reliability, safety, environmental health, and physical and cyber security of the energy system.
- Energy/commodity trading/scheduling/marketing functions, who can't perform their duties remotely.
- IT and OT technology for essential energy sector operations including support workers, customer service operations; energy management systems, control systems, and Supervisory Control and Data Acquisition SCADA systems, and energy sector entity data centers; cybersecurity engineers; and cybersecurity risk management.
- Workers supporting the energy sector through renewable energy infrastructure (including, but not limited to wind, solar, biomass, hydrogen, ocean, geothermal, and/or hydroelectric), including those supporting construction, manufacturing, transportation, permitting, operation/maintenance, monitoring, and logistics.
- Workers and security staff involved in nuclear re-fueling operations.

Added to the Electricity industry segment of the Energy section:

- Workers at coal mines, production facilities, and those involved in manufacturing, transportation, permitting, operation/maintenance and monitoring at coal sites which is critical to ensuring the reliability of the electrical system.
- Workers who produce, process, ship and handle coal used for power generation and manufacturing.
- Workers at renewable energy infrastructure (including, but not limited to wind, solar, biomass, hydrogen, geothermal, and/or hydroelectric), including those supporting construction, manufacturing, transportation, permitting, operation/maintenance, monitoring, and logistics.
- Essential support personnel for electricity operations.
- Generator set support workers such as diesel engineers used in power generation.
- Clarified workers needed for nuclear generation to include the broader nuclear supply chain, parts to maintain nuclear equipment, fuel manufacturers and fuel components used in the manufacturing of fuel.
- Clarified the inclusion of workers who are involved in the development, transportation, fuel procurement, expansion, or operation of the generation, transmission, and distribution of electric power.

Clarified in the Petroleum industry segment of the Energy section:

- Workers for onshore and offshore petroleum drilling operations; platform and drilling construction and maintenance; transportation (including helicopter operations), maritime transportation, supply, and dredging operations; maritime navigation; well stimulation,

intervention, monitoring, automation and control, extraction, production; processing; waste disposal, and maintenance, construction, and operations.

- Workers for crude oil, petroleum and petroleum product storage and transportation, including pipeline, marine transport, terminals, rail transport, storage facilities and racks and road transport for use as end-use fuels such as gasoline, diesel fuel, jet fuel, and heating fuels or feedstocks for chemical manufacturing.

Added “Natural Gas Liquids (NGL), Propane, and other liquid fuels” to the title of the Natural Gas section

- Added workers in fuel sectors (including, but not limited to nuclear, coal, and gas) supporting the mining, manufacturing, logistics, transportation, permitting, operation/maintenance, and monitoring of support for resources.
- Added ethanol and biofuel production, refining, and distribution.
- Clarified the inclusion of workers who support onshore and offshore drilling operations, platform and drilling construction and maintenance; transportation (including helicopter operations); maritime transportation, supply, and dredging operations; maritime navigation; natural gas and natural gas liquid production, processing, extraction, storage and transportation; well intervention, monitoring, automation and control; waste disposal, and maintenance, construction, and operations.
- Clarified the inclusion of transmission and distribution pipeline workers, including compressor stations and any other required, operations maintenance, construction, and support for natural gas, natural gas liquid, propane, and other liquid fuels.

Transportation and Logistics

- Added the following types of workers:
 - Workers supporting the distribution of food, pharmaceuticals (including materials used in radioactive drugs) and other medical materials, fuels, chemicals needed for water or water treatment and energy Maintenance and operation of essential highway infrastructure, including roads, bridges, and tunnels (e.g., traffic operations centers and moveable bridge operators).
 - Employees supporting personal and commercial transportation services – including taxis, delivery services, vehicle rental services, bicycle maintenance and car-sharing services, and transportation network providers.
 - Workers supporting transportation via inland waterways such as barge crew, dredging, river port workers for essential goods
 - Workers critical to rental and leasing of vehicles and equipment that facilitate continuity of operations for essential workforces and other essential travel
 - Warehouse operators, including vendors and support personnel critical for business continuity (including HVAC & electrical engineers; security personnel; and janitorial staff) and customer service for essential functions.
 - Bus drivers and workers who provide or support intercity, commuter and charter bus service in support of other essential services or functions.
 - Transportation safety inspectors, including hazardous material inspectors and accident investigator inspectors.
 - Workers providing critical transit services and/or performing critical or routine maintenance to mass transit infrastructure or equipment.

- Employees who repair bicycles.
- Included truck drivers, bus drivers, DMV employees, towing/recovery services, roadside assistance workers, intermodal transportation personnel in the list of employees supporting or enabling transportation functions.
- Added cold- and frozen-chain logistics for food and critical biologic products.
- Clarified maritime transportation workers to include dredgers, ship crewmembers, ship pilots and tug boat operators, and ship supply, chandler, and repair companies.
- Clarified “truck drivers” as workers including truck drivers, railroad employees and contractors, maintenance crew, and cleaners supporting transportation of chemicals, hazardous, medical, and waste materials to support critical infrastructure, capabilities, functions, and services, including specialized carriers, crane and rigging industry workers.
- Added transportation equipment manufacturing and distribution facilities, and included automotive repair and maintenance facilities who repair and maintain electric vehicle charging stations.
- Included parcel, courier, and last-mile delivery in postal and shipping workers.

Expanded the title of Public Works section to include “And Infrastructure Support Services”

- Expanded the following section on types of workers:
 - Workers such as plumbers, electricians, exterminators, builders, contractors, HVAC Technicians, landscapers, and other service providers who provide services that are necessary to maintaining the safety, sanitation, and essential operation of residences, businesses and buildings such as hospitals, senior living facilities, any temporary construction required to support COVID-19 response.
- Added Workers who support the inspection and maintenance of aids to navigation, and other government provided services that ensure continued maritime commerce.
- Included landfill operations as part of support to ensure effective removal, storage, and disposal of residential and commercial solid waste and hazardous waste.

Communications and Information Technology

- Added the following types of workers:
 - Government and private sector employees (including government contractors) with work related to undersea cable infrastructure and support facilities, including cable landing sites, beach manhole vaults and covers, submarine cable depots and submarine cable ship facilities.
 - Government and private sector employees (including government contractors) supporting Department of Defense internet and communications facilities.
 - Workers providing electronic security, fire, monitoring and life safety services, and to ensure physical security, cleanliness and safety of facilities and personnel, including temporary licensing waivers for security personnel to work in other States of Municipalities.
 - Retail customer service personnel at critical service center locations for onboarding customers, distributing and repairing equipment and addressing customer issues in order to support individuals’ remote emergency communications needs, supply chain and logistics personnel to ensure goods and products are on-boarded to provision these front-line employees.

- External Affairs personnel to assist in coordinating with local, state and federal officials to address communications needs supporting COVID-19 response, public safety, and national security.
- Employees required in person to support Software as a Service businesses that enable remote working, performance of business operations, distance learning, media services, and digital health offerings, or required for technical support crucial for business continuity and connectivity.
- Added Points of Presence, Network Access Points, and back haul and front haul facilities to list of communications infrastructure.
- Included IT managers and staff, HVAC & electrical engineers, security personnel, software and hardware engineers, and database administrators in list of Network Operations staff, engineers and/or technicians.
- Clarified infrastructure constructions and restoration to include fiber optic cables, buried conduit, small cells, other wireless facilities, and other communications sector-related infrastructure, including construction of new facilities and deployment of new technology required to address congestion or customer usage due to unprecedented use of remote services.
- Clarified the inclusion of workers who support client service centers, field engineers, and other technicians and workers supporting critical infrastructure, as well as manufacturers and supply chain vendors that provide hardware and software, support services, research and development, and information technology equipment (to include microelectronics and semiconductors), and HVAC and electrical equipment for critical infrastructure, and test labs and certification agencies that qualify such equipment (to include microelectronics, optoelectronics, and semiconductors) for critical infrastructure, including data centers.

Other Community/Government-Based Operations

- Added the following types of workers:
 - Workers supporting the operations of the judicial system.
 - Employees necessary to maintain news and media operations across various media.
 - Employees supporting Census 2020.
 - Clergy for essential support.
 - Staff at government offices who perform title search, notary, and recording services in support of mortgage and real estate services and transactions.
 - Residential and commercial real estate services, including settlement services.
 - Workers supporting essential maintenance, manufacturing, design, operation, inspection, security, and construction for essential products, services, and supply chain and COVID 19 relief efforts.
- Clarified continuity of building functions to include security and environmental controls (e.g., HVAC), the manufacturing and distribution of the products required for these functions, and the permits and inspections for construction supporting essential infrastructure.

Critical Manufacturing – This entire section was expanded significantly with the elements below:

- Workers necessary for the manufacturing of metals (including steel and aluminum), industrial minerals, semiconductors, materials and products needed for medical supply chains, and for supply chains associated with transportation, energy, communications, information technology, food and agriculture, chemical manufacturing, nuclear facilities, wood products, commodities used as fuel for power generation facilities, the operation of dams, water and wastewater treatment, processing and reprocessing of solid waste, emergency services, and the defense

industrial base. Additionally, workers needed to maintain the continuity of these manufacturing functions and associated supply chains, and workers necessary to maintain a manufacturing operation in warm standby.

- Workers necessary for the manufacturing of materials and products needed to manufacture medical equipment and personal protective equipment (PPE).
- Workers necessary for mining and production of critical minerals, materials and associated essential supply chains, and workers engaged in the manufacture and maintenance of equipment and other infrastructure necessary for mining production and distribution.
- Workers who produce or manufacture parts or equipment that supports continued operations for any essential services and increase in remote workforce (including computing and communication devices, semiconductors, and equipment such as security tools for Security Operations Centers (SOCs) or datacenters).

Financial Services

Added the following types of workers:

- Workers who are needed to maintain orderly market operations to ensure the continuity of financial transactions and services.
- Workers supporting production and distribution of debit and credit cards.
- Workers providing electronic point of sale support personnel for essential businesses and workers.

The following 3 sections are entirely new to the CISA guidance:

COMMERCIAL FACILITIES

- Workers who support the supply chain of building materials from production through application/installation, including cabinetry, fixtures, doors, cement, hardware, plumbing, electrical, heating/cooling, refrigeration, appliances, paint/coatings, and employees who provide services that enable repair materials and equipment for essential functions.
- Workers supporting ecommerce through distribution, warehouse, call center facilities, and other essential operational support functions.
- Workers in hardware and building materials stores, consumer electronics, technology and appliances retail, and related merchant wholesalers and distributors - with reduced staff to ensure continued operations.
- Workers distributing, servicing, repairing, installing residential and commercial HVAC systems, boilers, furnaces and other heating, cooling, refrigeration, and ventilation equipment.

RESIDENTIAL/SHELTER FACILITIES AND SERVICES

- Workers in dependent care services, in support of workers in other essential products and services.
- Workers who support food, shelter, and social services, and other necessities of life for needy groups and individuals, including in-need populations and COVID-19 responders (including travelling medical staff).
- Workers in animal shelters.
- Workers responsible for the leasing of residential properties to provide individuals and families with ready access to available housing.

- Workers responsible for handling property management, maintenance, and related service calls who can coordinate the response to emergency “at-home” situations requiring immediate attention, as well as facilitate the reception of deliveries, mail, and other necessary services.
- Workers performing housing construction related activities to ensure additional units can be made available to combat the nation’s existing housing supply shortage.
- Workers performing services in support of the elderly and disabled populations who coordinate a variety of services, including health care appointments and activities of daily living.
- Workers supporting the construction of housing, including those supporting government functions related to the building and development process, such as inspections, permitting and plan review services that can be modified to protect the public health, but fundamentally should continue and serve the construction of housing (e.g., allow qualified private third-party inspections in case of government shutdown).

HYGIENE PRODUCTS AND SERVICES

- Workers who produce hygiene products.
- Workers in laundromats, laundry services, and dry cleaners.
- Workers providing personal and household goods repair and maintenance.
- Workers providing disinfection services, for all essential facilities and modes of transportation, and supporting the sanitation of all food manufacturing processes and operations from wholesale to retail.
- Workers necessary for the installation, maintenance, distribution, and manufacturing of water and space heating equipment and its components.
- Support required for continuity of services, including commercial disinfectant services, janitorial/cleaning personnel, and support personnel functions that need freedom of movement to access facilities in support of front-line employees.