

Data Center Work Rules  
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## Process, Procedure or Work Instruction Content

### 1 Responsibilities

- 1.1 It is the responsibility of all contractors to comply with this policy.
- 1.2 The Site Point of Contact (SPOC) is the Centersquare individual responsible for the contractor or vendor's presence on site and is the single point-of-contact for the contractor.
- 1.3 The Site Manager is responsible for all activities in the data center.
- 1.4 The SPOC is responsible for obtaining any contractor work approval from the Site Manager when necessary.
- 1.5 It is the responsibility of the SPOC to ensure all contractors are aware of, understand, and have been trained on the Data Center Work Rules and requirements.
- 1.6 If any member of the Csquare Operations staff observes a contractor failing to follow this policy, it is their responsibility to take appropriate action to correct.

### 2 Process Overview and Policy

- 2.1 All contractors must be trained on and display an understanding of the Data Center Work Rules. Contractors will adhere to the rules and guidelines set forth by this document at all times while on the premises.
- 2.2 All contractors must pass a written exam demonstrating they have read and understand the contents of this document. A passing score is 80%.
  - 2.2.1 All questions answered incorrectly will be reviewed with the SPOC to ensure the correct answer is understood and acknowledged.
  - 2.2.2 If a passing score is not achieved after the first attempt, the exam may be retaken after reviewing incorrect answers with the SPOC. If a passing score is not achieved after the second attempt, the Site Manager will be contacted to determine next steps.
- 2.3 Csquare reserves the right to administer an additional vendor qualification examination, based on industry standard requirements, to any contractor performing work in the data center. Passing score is 80% for this exam, as well.
- 2.4 Contractors who complete orientation and pass the written exam will receive a certification good for one year from the completion date. The certification is valid in all Csquare data centers.
  - 2.4.1 Certified contractors will be entered into ServiceNow (SNOW) with a user record, and test results will be updated by the Csquare Operations team member administering the exam.

- 2.4.2 Contractors performing tasks not impacting critical systems operation are permitted to take the “Non-Technical” Work Rules Test.
  - 2.5 Upon expiration of certification, the contractor will be required to review the Data Center Work Rules and pass another written exam.
    - 2.5.1 Exceptions to any of these Data Center Work Rules require project-specific written permission from the Site Manager.
      - NOTE:** For emergency situations, verbal authorization from the Site Manager is sufficient for temporary access permissions until written permission can be provided.
  - 2.6 Failure to comply with the Data Center Work Rules may be grounds for automatic dismissal from the premises and may result in being permanently barred from access.
- ### 3 Work Rules – General
- 3.1 All work will take place within the date range on the work order and in accordance with the SPOC’s communicated schedule. Vendors and contractors are required to contact the SPOC upon arrival to the data center and before any work is performed.
  - 3.2 Get permission from the SPOC before starting work at the beginning of the day and when returning from lunch.
  - 3.3 Use of cameras inside a Csquare facility requires specific authorization. Contact the SPOC if pictures are necessary. The Site Manager has approval authority for photography in the data center.
  - 3.4 Be especially careful around any computer hardware that has had the protective outer metal skin removed. With its covers off, such equipment is usually more susceptible to nearby electrical disturbances or dust.
  - 3.5 Do not set things on top of equipment or block access to any aisle ways, doors, air conditioning or Power Distribution Units, Emergency Power Off (EPO) or electrical panels.
  - 3.6 Pipe cutting, pipe threading, cement cutting or drilling within the data center requires the prior approval of the Site Manager. Contractor, before starting any of the above, must ensure with the SPOC that the appropriate Fire Alarm System or applicable zones have been disarmed if needed. Whenever possible, any cutting or drilling on tiles or other components must be done outside of the data center.
  - 3.7 Gunpowder discharge activated construction tools or devices are not permitted.
  - 3.8 Contractors must provide their own tools when working in a data center. Csquare will not loan contractors any tools, including ladders.

- 3.9 Contractors may only use electrical outlets marked “House Power” for power tools. Battery-powered tools are preferred.
    - 3.9.1 When using “House Power” outlets, a portable Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) must be used.
    - 3.9.2 Power tools must be in good working condition, and without obvious damage, deterioration, or frayed cords.
    - 3.9.3 (UK only) All electrical equipment must have a valid PAT (Portable Appliance Testing). This must be provided before use.
    - 3.9.4 When in doubt, verify the preferred outlet with the SPOC.
  - 3.10 The integrity of rated firewalls or smoke barriers must be maintained on a daily basis.
  - 3.11 Workers shall not leave the site until their work area is clean and restored to safe condition, SPOC has been notified, and they have signed out per Security policies.
  - 3.12 In the event of any emergency or abnormal event (e.g., power outage) within the data center, STOP ALL WORK and consult with your SPOC or site staff.
  - 3.13 All work on the data center’s critical equipment must follow an approved Csquare procedure.
- 4 Work Rules – Data Center Security and Access
- 4.1 Contractor personnel must enter the data center through the front lobby and check in with security to obtain their Temporary Security Badge. No one is permitted to enter or exit the data center through an alternate entry point until that person has signed in/out per Security policies.
  - 4.2 All contractor personnel must present a valid government-issued pictured ID when they check in with Security. NO EXCEPTIONS. No contractor will be allowed access to the facility without presenting identification.
  - 4.3 Contractor personnel must always display a Temporary Security Badge. Return this badge to the Security desk daily.
  - 4.4 The SPOC must be notified and approve arrival or departures of contractor personnel. Security will notify the SPOC listed on the work order upon contractor check-in.
  - 4.5 The SPOC must be notified before moving large equipment into or out of the building, or the main computer room, or from the dock area so open doors and door alarms may be managed.
  - 4.6 Access to work areas will be handled as follows.

- 4.6.1 A ticket must be opened for access to an occupied cage. The SPOC will make sure the ticket gets generated. For contractors on-site under temporary access, only Csquare personnel are allowed to unlock a customer-occupied space for a contractor to perform work.
  - 4.6.2 The SPOC must be contacted for accessing any secured areas such as the roof, equipment rooms, storerooms, power panels, etc.
  - 4.6.3 No Csquare-issued keys, key rings or temporary badges shall leave the building.
  - 4.6.4 Data center access is restricted to only those locations required for performing approved work. Many areas within the data center are restricted even to Csquare employees and have strict rules governing access to those areas.
  - 4.6.5 Access to the Meet-Me-Room and any caged areas inside the data center is severely restricted. Unauthorized entry into these areas is grounds for termination for Csquare employees. Contractors are not to enter these areas under any circumstances unless authorized to do so by the SPOC.
  - 4.7 Contractors may not prop open exterior or interior doors unless approved to do so by the SPOC.
  - 4.8 Contractors may not, under any circumstances, disable door sensors or alarms unless specifically directed to do so by the SPOC with Security notification.
  - 4.9 Alarmed doors are not to be used for egress unless approved by the SPOC or as instructed during a building evacuation.
- 5 Work Rules – Personal Behavior
- 5.1 All vendors, contractors, and other service providers must be appropriately attired and act in a professional manner.
  - 5.2 No firearms, explosive chemicals or devices, disabling chemicals, or weapons of any type are allowed in the data center.
  - 5.3 Smoking, including vapor/electronic cigarettes, is not allowed inside the building or in the immediate vicinity of building entrances. Use the designated smoking area, where applicable. Any posted rules must be followed.
  - 5.4 Profane language, abusive behavior, being under the influence of alcohol or drugs, sexual comments, leering, and other offensive or inappropriate behavior will not be permitted, and offenders will be asked to permanently leave the premises.
  - 5.5 The use of personal entertainment devices (radios, digital media players, video games, etc.) is not permitted in critical areas.
  - 5.6 No food or drink is allowed in critical areas. Food and drink are permitted in designated locations only.

5.7 No combustibles (cardboard, wood, etc.) are allowed in critical areas.

5.8 Follow all posted signage.

## 6 Work Rules – Safety

6.1 Be safe!

6.2 When in doubt, ask!

6.3 If you observe unsafe behavior, report it!

6.4 All contractors and vendors must thoroughly understand their scope of work and any associated risks before performing any tasks.

6.5 Obey safety cones, barricades, caution tape, or other safety equipment that have been installed to guide personnel around hazardous areas.

6.5.1 **Red** tape means **DANGER**, do not enter for any reason. Only personnel responsible for the specific task being performed may cross the boundary.

6.5.2 **Yellow** tape means **CAUTION**, do not enter without permission from the person performing the work. Do not assume a work area is safe.

6.6 Contractors must not block access ways unless absolutely necessary to complete their work. If blocking an access way is necessary, the contractor will contact the SPOC for approval. Safety cones and/or caution tape will be placed around the work area when access ways are blocked.

6.7 Emergency evacuation routes, including stairways and exit doors, must never be obstructed or blocked.

6.8 Follow proper safety instructions while operating any piece of equipment.

6.9 Carrying awkward loads within the data center requires a minimum of two people (one on each end).

6.10 Contractors using hand and power tools and exposed to falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists, vapors, or gases are responsible to have and wear the proper Personal Protective Equipment (PPE), such as safety glasses, face shields, protective gloves, etc. Any PPE required must be provided by the contractor.

6.11 Use safety cones, barricades, caution tape, or other safety equipment and devices to direct people away from hazardous areas. Replace all floor and ceiling tiles before leaving the work area and at the end of each day.

6.12 Do not cross protective barriers or devices without asking permission from the person performing the work. Be especially cautious in areas where floor tiles may be removed exposing the under-floor area.

- 6.13 In the event of an audible alarm or unusual noises from any piece of equipment in the data center, stop work and contact an Operations team member or a Security Officer immediately.
  - 6.14 Personnel must always make sure they are aware of the location of the fire exits as well as the nearest fire extinguishers. Evacuation maps are posted throughout the data center.
  - 6.15 In the event of physical injury or medical emergency, notify an Operations team member or Security personnel immediately. In an emergency, call 911 (or applicable emergency services number) or notify Security to do so. If possible, remain with the injured person until help arrives.
  - 6.16 In the event of a fire alarm, fire, earthquake, or other life-threatening emergency all employees, vendors, and contractors will receive instruction regarding proper evacuation. Individuals must not leave the assembly point until they have been accounted for and have communicated their departure to their foreman or SPOC, or their designee.
  - 6.17 Foremen or lead persons are responsible for checking worker headcount and reporting to the fire official in charge that their people are out of the building.
- 7 Work Rules – Control of Equipment and Stop Work Authority
- 7.1 ANY person in the data center, including a customer or the janitor, has the authority to stop work.
    - 7.1.1 Upon being issued a stop work order, the contractor must immediately stop work and place the work area in a safe condition.
    - 7.1.2 The contractor should immediately contact the SPOC for guidance on next steps.
    - 7.1.3 The Site Manager shall assess the situation and determine what if anything should be changed to correct the unsafe condition prior to resuming work.
    - 7.1.4 No retribution shall occur or be permitted for reporting a legitimate (even if mistaken) concern.
  - 7.2 If work is to be accomplished on equipment, the SPOC must turn over control of the equipment to the contractor/workers before work can be accomplished.
  - 7.3 When work has been completed, the contractor/worker must turn over control of the equipment to the SPOC prior to leaving the work area or they will be called back to do so.
- 8 Work Rules – Hazardous Materials
- 8.1 Materials deemed hazardous must be in an acceptable container that is approved by the SPOC. A copy of the Safety Data Sheet (SDS) will both accompany the material and be provided to the SPOC for retention in the facility's SDS binder.

- 8.2 Paints, solvents, adhesives, or any other flammable materials are considered hazardous materials and fall under item 8.1 above. These are not to be stored on the raised floor. If these materials must be stored on site, they must be kept to a minimum, away from the raised floor, and properly labeled in closed containers.
  - 8.3 All solvent waste or flammable liquids, leftover paint, cleaners, oily rags and other cleanup materials, and other materials are to be kept in properly labeled, fire resistant, closed containers until removed from the site. All hazardous materials are to be removed from the site daily.
  - 8.4 Chemical wastes are to be disposed of by the contractor in strict compliance with applicable government regulations.
  - 8.5 Any spill of a hazardous material must be reported immediately to the Operations team. Spills of certain types of hazardous materials require immediate reporting by Csquare to governmental agencies. Contractors are to consider any chemical spill as a serious event.
  - 8.6 A contractor attempting to “cover up” a chemical spill may be subject to legal action by governmental agencies.
- 9 Work Rules – Electrical Installation Standards
- 9.1 “Energized Work” is defined as any work performed on energized electrical components. The voltage level for energized work varies by country, for example:
    - 9.1.1 In the US, energized work is above 50 volts.
    - 9.1.2 Canada is above 30 volts AC, 60 volts DC.
    - 9.1.3 UK is above 50 volts AC, 120 volts DC.
  - 9.2 All work on energized and de-energized electrical systems must be done in strict accordance with applicable electrical codes and regulations, including local codes.
  - 9.3 Any energized electrical work assigned to a contractor must be performed by a qualified/competent electrical person.
  - 9.4 Whenever possible, energized electrical work is to be avoided. In the event there are no practicable alternatives, the energized electrical work must:
    - 9.4.1 Be approved by the Site Manager
    - 9.4.2 Be in conformance with the applicable local/national electrical safety code(s)
    - 9.4.3 Follow all local procedures that are required to document and perform the energized work. Common documentation may include but is not limited to an approved Method of Procedure (MOP), Energized Electrical Work Permit, Permit to Work, and/or Authorization to Work.
  - 9.5 Non-metallic fish tapes will be used for all electrical work.

- 9.6 All electrical circuits in the data center will terminate in an approved device per regional Csquare standards.
  - 9.7 Power for rack or cabinet mounted equipment must be dedicated to that rack or cabinet. Internally connecting power between adjacent racks or cabinets is not allowed.
  - 9.8 All power strips and electrical circuits must be dedicated home runs with no splices or intermediate plugs or connections back to its own source of power. Do not daisy chain power strips, i.e. one power strip cord plugged into a receptacle of another power strip to provide additional outlet receptacles.
  - 9.9 Do not open any breaker unless positively identified by a circuit load verification test and directed to do so by an approved procedure.
- 10 Work Rules – Emergency Power Off (EPO)
- 10.1 EPO is not available in all data centers. Where it exists, these rules apply to central EPOs and/or equipment-specific EPOs.
  - 10.2 EPO buttons are located at the exits on each floor and are carefully labeled. Operation of an EPO button removes all power and supply air within a particular computer room zone, resulting in a failure of the data center. This is an extremely serious event that could lead to legal action.
  - 10.3 Use the EPO button only in the event of a major life-threatening emergency, such as fire or electrocution. If possible and prudent, attempt to localize the problem before using the EPO which shuts off power and air flow to an entire computer room and has a major impact on the entire company.
  - 10.4 Operation of the EPO button will sound an alarm. Do not press the reset button on the EPO panel. Only Operations personnel with the approval of Site Manager can reset an EPO panel.
- 11 Work Rules - Fire System Impairments
- 11.1 Fire systems are designed to protect building occupants and infrastructure. A fire system impairment is the temporary shutdown of any component associated with the operation of a fixed fire protection system including:
    - Fire (smoke) detection or alarm systems.
    - Automatic sprinklers
    - Underground water (fire) mains
    - Fire hydrants.
    - Fire pumps.
    - Special fire extinguishing systems (e.g., foam, FM200, or wet chemical)
  - 11.2 All fire system impairments must be coordinated with the SPOC.**

11.3 Failure to coordinate a fire protection impairment with the SPOC may result in a future ban from the site and follow up action being taken against your organization.

## 12 Work Rules – Fire Detection and Suppression Systems

12.1 Pre-action water sprinklers protect both under and above the raised floor and above office and support spaces. The sprinklers will function automatically when a temperature exceeds a preset level, and the fire detection system is in alarm. Every effort shall be made to prevent such a condition from occurring.

12.2 On activation of a smoke detector, strobe lights will flash, and horns will sound.

12.3 In the event of a fire alarm, evacuate the data center immediately. Go directly to the nearest safe exit unless directed otherwise by Security personnel. Gather and remain at the designated assembly point until given permission to leave.

12.4 Any time a fire detection alarm or suppression system is disabled, contractors will notify the SPOC when related work is completed.

## 13 Work Rules – Work Site Cleanliness

13.1 It is the responsibility of the contractor performing work on the premises to keep the work site clean and free of hazards.

13.2 Contractors will not block airflow in the data center with equipment, carts, doors, etc. unless absolutely necessary to complete their work. If blocking airflow is necessary, the contractor shall contact the SPOC for approval.

13.3 Vacuums must be actively used while performing work that creates dust, shavings or other particles. All vacuums used in the data center will have a HEPA discharge filter capable of limiting discharged particles to 0.3 microns. A wet vacuum may be used for water recovery only and with the approval of the SPOC.

13.4 Liquids are not allowed on the raised floor areas unless absolutely necessary to complete the required work and approved by the SPOC. If approved, liquids in these areas may only be used while under the control and supervision of the user.

13.5 All equipment and components must be unpacked in specified staging areas prior to being moved onto the data center floor. Storage of tools and equipment in the data center is not desirable and shall only be done with the permission of the SPOC. When storing tools and materials in the data center, store them neatly in an area approved by the SPOC.

13.6 Work areas must be clean prior to contractors and vendors leaving for the day and/or upon the completion of the job.

13.7 All non-hazardous wastes, such as cardboard, paper, metal and general trash must be separated and placed into the appropriate receptacles. If you have any questions about the proper disposal practices, discuss with the SPOC.

## 14 Work Rules – Initiating Project Work

- 14.1 All work must have an approved Work Order. Verbal or handwritten instructions are not allowed. The work order will contain the task instructions or reference other approved procedures.
- 14.2 All procedures will be reviewed during the job briefing and agreed upon by the contractor before work begins. Any questions or concerns shall be communicated to the SPOC.
- 14.3 Any deviations from the approved work scope or procedure shall be evaluated and approved by Site Manager prior to work start.
- 14.4 The contractor shall check off steps in the work procedure as he/she completes them to avoid skipping a step or performing steps out of sequence. The contractor shall be able to provide status at any time during the task if asked to do so.

## 15 Work Rules – Essential Documents for Working in the Facility

- 15.1 Approved Work Order. The work order will contain the task instructions or reference other approved procedures.
- 15.2 Approved Procedure. The approved procedure must be “at hand” in the work area and visible where critical work is being performed. Work will be immediately halted if the approved procedure is not available or is not being followed.
- 15.3 Drawings and Layouts. All construction projects should be accompanied by revised drawings or layouts showing the intended configurations.
- 15.4 Permits. Ensure permits are obtained according to local ordinances.
- 15.5 Safety Data Sheet (SDS). Provide a Safety Data Sheet for any hazardous material you bring into the facility. The SDS is maintained in a binder by the Site Manager.
- 15.6 Panel Schedule. If you are working on circuits, you must have an updated panel schedule provided by the SPOC.

 **NOTE:** Other documents may be required depending upon the work to be performed.

## 16 Work Rules – Shipping and Receiving

- 16.1 All contractors/vendors must notify the SPOC of pending shipments. Any delivery attempt made without prior scheduling may be rejected. Contractors must be on site to receive any large or heavy shipments.
- 16.2 The dock area is for unloading only – no parking is permitted. Contractor/vendor trucks are to be parked in the locations specified by the SPOC.
- 16.3 If the dock area is used as a staging area for equipment and material to be brought into the data center, contractors must remove their trash and debris prior to continuing their work inside the data center.

## 17 Work Rules – Customer Cages

- 17.1 Customer space is defined as the cages and areas in the data center occupied by customers, which include the raised floor and customer offices.
- 17.2 Access to the customer-occupied cages is strictly regulated. Access to a customer’s cage can only be granted if a Csquare ticket has been opened.
- 17.3 Contractors inside a customer’s cage are authorized to perform only those tasks as detailed in the ticket and/or vendor work order.
- 17.4 Customer inquiries and requests directed to contractors should be immediately referred to the Csquare Team.

- 17.5 A customer-occupied cage in which contractors are performing work must be secured (doors always closed and locked).
- 17.6 Contractors are not to remove anything from a customer's cage unless specifically directed to do so by the SPOC.

## 18 Work Rules – Raised Floor and Ceiling Tiles

- 18.1 To protect the surface and physical strength of the raised floor from heavy computer equipment rolling spot loads, use 1/8" aluminum sheets to distribute weight staggered across multiple tiles.
- 18.2 The contractor will coordinate with the SPOC to identify the weight bearing capacity of the floor tiles prior to moving heavy loads.
- 18.3 Minimize the size of cable cutouts to limit the unnecessary loss of cooling air and static pressure.
- 18.4 Cutouts in floor tiles shall be protected with permanent plastic trim strips.
- 18.5 Replace all previously cut or drilled floor tiles, no longer in use, with full tiles.
- 18.6 Do NOT move or cover a perforated floor tile or ceiling ventilation duct without first consulting the SPOC.
- 18.7 Removing ceiling and floor tiles affects the dynamics of the HVAC system in our data center. With permission from the SPOC, you may remove up to three (3) floor tiles and three (3) ceiling tiles at one time. If it is impractical to perform the work with this limited access, a variance can be given by the SPOC.
- 18.8 When removing ceiling and floor tiles, you must:
  - 18.8.1 Use a HEPA vacuum to prevent dirt and debris from contaminating the data center.
  - 18.8.2 Discuss with the SPOC whether to disarm the fire alarm system in the affected zone.
  - 18.8.3 Mark off the area with safety cones and or barricades.
- 18.9 When replacing floor tiles always make sure they are level with adjacent tiles and that none of the sides are elevated, which may create a trip hazard. In the event a floor tile cannot be properly re-installed, cover with a safety cone and notify the SPOC.

## 19 Work Rules – Lock Out/Tag Out Procedures

- 19.1 Any lock out/tag out must be coordinated with the SPOC to determine whether Csquare or the contractor's procedure will be followed.
- 19.2 Service technicians and mechanics must provide their own equipment, locks and tags. A properly filled out tag must accompany each lock.

- 19.3 Csquare reserves the right to affix a lockout along with the contractor's lockout.
- 19.4 Any person working near or on de-energized equipment shall place their lock on the lockout device.
- 19.5 Notify the SPOC before locking or unlocking any tagged-out piece of equipment.
- 19.6 Do not reactivate or apply power to any piece of equipment without first informing and receiving clearance from the SPOC.

## 20 Work Rules – Welding and Cutting Permits

- 20.1 A Hot Work Permit is required before performing any work activities which produce heat, sparks or involve an open flame. The permit is acquired from the Site Manager and must also be acknowledged by the contractor. Additionally, you must:
  - 20.1.1 Ensure the SPOC has disarmed the fire alarm system in the area surrounding the work.
  - 20.1.2 Use an operational smoke eater (e.g., HEPA filtration or exhaust outside the data center).
  - 20.1.3 Keep a fire extinguisher in easy reach.
  - 20.1.4 Establish a fire watch.
  - 20.1.5 Follow all instructions listed on the hot work permit.
  - 20.1.6 Notify the SPOC upon completion of the work.

## 21 Work Rules – Closing a Completed Project

- 21.1 Work must be done to the satisfaction of the SPOC. The contractor shall contact the SPOC to review the work for sign-off.
  - 21.2 All temporary or interim solutions must be removed, all penetrations must be permanently sealed, tools and materials must be removed, and as-built documentation must be completed.
  - 21.3 The work order, procedures, and drawings shall be returned to the SPOC with comments and redlines.
- Commissioning and Operational Testing, where applicable, must be documented, completed, and accepted by Csquare.