Electrical Checklist Plan Review Checklist

GENERAL
☐ Identify installations or parts of installations that are covered by the NEC
☐ Check listing and labeling of materials and equipment
☐ Identify installations and equipment requiring special approval or investigation
☐ Verify that interrupting ratings are adequate for the conditions of the installations
☐ Check for proper use and rating of splices and terminations
☐ Check temperature ratings of terminations
☐ Check adequate working clearances, dedicated spaces, and headroom around equipment
☐ Check that working space and dedicated space are not used for storage
☐ Check adequacy of entrance to and exit from working space in general and verify that spaces containing large equipment have at least two entrances/exits
☐ Check for identification of disconnecting means and circuit directories for panelboards, switchboards, and similar equipment

SERVICE/FEEDERS
☐ Check underground conductors for adequate burial depth and protection
☐ Verify that wiring methods are proper for service entrance equipment
☐ Verify that each building or structure has only one service or, if more that one, that additional services are justified
☐ Verify that each service drop or lateral supplies only one set of service entrance conductors or, if more than one, that the additional sets are justified
☐ Check service conductors for adequate size and rating
☐ Verify that service equipment is identified as suitable for the use
☐ Verify that a service disconnecting means is provided, suitable and located outside or inside nearest the point of entrance of the service conductors
☐ Verify that service overcurrent protection is provided, properly sized, and part of or adjacent to the disconnecting means.
☐ Verify that service disconnects are grouped together and limited to six in any one location, also feed from which transformer
☐ Check ratings of service disconnecting means
☐ Check for equipment connected to supply side of the service disconnecting means and over current protection
☐ Verify that ground-fault protection is supplied where required
☐ Verify that feeder conductors, including any neutral conductors, are adequate for the load
☐ Verify over current device and feeder conductor sizing for continuous and non-continuous loads
☐ Check wiring methods for suitability
☐ Check feeders with disconnecting means rated at 1000 amps or greater for ground fault protection for equipment if required
☐ Check that disconnects are provided at separate structures for feeders running between structure
☐ Verify that disconnects at separate structures are properly rated
☐ Check that disconnects at separate structures are properly located, grouped, and identified
☐ Verify that feeder tapped from transformers are properly protected by over current devices
☐ Verify panelboards supplying or supplied by feeders for over current protection, grounding, and proper enclosures

Note: This checklist provides a guideline of topics that may be reviewed during plan review. Plan review is not limited to the topics on this list.
Electrical Checklist Plan Review Checklist

☐ Check that wiring methods used are appropriate for conditions and occupancy
☐ Verify panelboards for proper over current protection
☐ Check individual and multioutlet branch circuits for proper ratings
☐ Verify conductors and over current protection for consideration of continuous and noncontinuous loads, multioutlet loads, and minimum ampacity and size

BRANCH CIRCUITS

☐ Check branch circuits supplying receptacles and other outlet devices for permitted ratings of circuits and receptacles
☐ Verify branch circuit loads do not exceed maximum permitted loads
☐ Verify that branch circuits supplying motors are sized according to ART. 430 or 440
☐ Verify that branch circuits supplying inductive lighting loads are based on ballast ratings
☐ Verify that branch circuits are used to supply only permissible loads based on their ratings
☐ Verify for compliance with branch circuit voltage limitations
☐ Check that all conductors of a circuit are grouped together
☐ Check insulation values where conductors of different systems share common enclosures

☐ Check cover, fill, protection, and allowances for ground movement on underground conductors and raceways
☐ Check that electrical raceways and cable trays are used exclusively for electrical conductors
☐ Verify conductor fill in raceways
☐ Verify that fire ratings have been restored at electrical penetrations

☐ Check installations of wiring in ducts, plenums, and other air handling spaces for proper method and materials
☐ Verify that switches are located not over 6ft 7in (2m) high and that they can be operated from readily accessible places unless otherwise permitted
☐ Check that the voltage between adjacent grouped or ganged devices is not over 300 volts or that barriers are installed
☐ Check that switches and receptacles are used within their ratings
☐ Check that receptacle ratings and branch circuit ratings are compatible

GROUNDING AND BONDING

☐ Determine what grounding electrodes are available on the premises
☐ Determine which other electrode are required or used
☐ Verify that the grounding electrode conductor or conductors are properly sized
☐ Check that water pipe is bonded
☐ Verify the size, type, and installation of the main bonding jumper
☐ Verify the size of service equipment bonding jumper
☐ Verify that the grounded service conductor size is adequate
☐ Check separately derived systems for proper grounding electrodes, grounding electrode conductors, and bonding jumpers
☐ Check that water pipe and structural metal building frames in the area served by each separately derived systems are bonded

Note: This checklist provides a guideline of topics that may be reviewed during plan review. Plan review is not limited to the topics on this list.
# Electrical Checklist Plan Review Checklist

- Identify equipment that is required to be grounded
- Check appropriate grounding methods for equipment fastened in place or connected by permanent wiring methods
- Check appropriate types of equipment grounding conductors
- Check separate equipment grounding conductors for proper sizing and identification
- Check proper grounding at separate buildings or structures
- Check bonding of raceways and cables sheaths containing circuits operating at over 250 volts to ground
- Check for occupancies or equipment with special grounding or bonding requirements

### MOTORS
- Verify that ampacities and sizing of components other than overload devices are based on tables values rather than nameplate values
- Verify that conductors ampacities for individual motors are at least 125 percent of table FLC
- Verify conductors supplying multiple motors for ampacities equal to at least the sum of FLC plus 125 percent of largest motor
- Verify that motor overload protection does not exceed permitted values
- Verify that short circuit and ground fault protection for motor branch circuits does not exceed permitted values
- Verify that short circuit and ground fault protection for motor feeders does not exceed permitted values
- Verify motor control circuits for proper over current protection
- Verify that motor controllers are provided for motors and that they are of the proper type and have adequate ratings, including short circuit current ratings
- Check MMC’s for proper ratings, protection, workspace, and dedicated space
- Check that motor disconnects are of the proper type and rating
- Check that controller disconnects are in sight of controllers, are readily accessible, and have adequate workspace
- Check that motor disconnects are in sight of motors, are readily accessible, and have adequate workspace

### AIR CONDITIONING AND REFRIGERATING EQUIPMENT
- Identify equipment subject to Article 440. Equipment containing hermetic refrigerant motor compressors
- Verify the applicable nameplate information for the equipment
- Verify that branch circuits conductor sizes are adequate on the basis of the applicable nameplate information
- Verify that conductors supplying several units are adequately sizes
- Verify that branch circuit overloads protection is provided and properly sized
- Verify that branch circuit short circuit and ground fault protection is provided and properly sized
- Verify that feeder short circuit and ground fault protection is provided and properly sized where applicable
- Verify that controllers have adequate ratings, including short circuit current rating, where they are not part of listed multimotor or combination load equipment

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Electrical Checklist Plan Review Checklist

☐ Check that disconnecting means have rating adequate for the equipment
☐ Check that disconnecting means are within sight and readily accessible from the equipment and that working spaces are adequate
☐ Check that conductors, receptacles, and over current devices for room air conditioners are properly sized and that LCDI or AFCI protection is provided for cords
☐ Check for receptacles and adequate lighting for servicing mechanical equipment

TRANSFORMERS
☐ Identify transformers that are covered by Article 450
☐ Verify that over current protection for transformers over 600 V is provided and properly sized
☐ Verify that over current protection for transformers or less 600 V is provided and properly sized
☐ Verify that over current protection is provided for transformers primary conductors
☐ Verify that over current protection is provided for transformers secondary conductors
☐ Check transformer installations for adequate ventilation and spacing from walls and obstructions
☐ Check transformers for ready access or proper installation in the open or in hollow spaces
☐ Check indoor dry type transformers for separation from combustibles or, based on rating, installation in fire resistant rooms or vaults
☐ Check outdoor dry type transformers for weatherproof enclosures
☐ Verify that liquid insulated transformers are installed in accordance with the requirements for location and type of insulating liquid
☐ Verify transformer vaults for adequate construction, access, ventilation, and drainage for foreign systems in vault

CAPACITORS
☐ Check capacitors for proper enclosures and guards
☐ Verify that conductors are properly sized on the basis of the current rating of the capacitor(s)
☐ Verify that capacitors other than those connected to the load side of motor overload devices have disconnects and proper over current protection
☐ Verify that overload devices ratings have been corrected where capacitors are connected to the load side of motor overload devices
☐ Check capacitors over 600 V for proper switching, over current protection, identification, and grounding
☐ Check that a proper means for discharge has been provided for capacitors

ELEVATORS, DUMBWAITERS, ESCALATORS, WHEELCHAIR LIFTS AND STAIRWAY LIGHTING
☐ Check required working clearances around elevator electrical equipment
☐ Verify conductors for proper insulation type and minimum size
☐ Verify ampacity of branch circuit and feeder conductors
☐ Check proper wiring methods
☐ Check the required branch circuits for car lighting, receptacles, ventilation and air conditioning
☐ Verify the required branch circuit for machine room, lighting and receptacle
☐ Verify required branch circuit for hoist way pit lighting and receptacle
☐ Verify for required receptacle and light switch provisions in machine rooms and pits

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Electrical Checklist Plan Review Checklist

☐ Verify that only elevator associated wiring is installed in hoist ways and machine rooms
☐ Check elevator machine disconnecting means for type, operation, and location
☐ Check disconnecting means for car lighting, receptacles and ventilation
☐ Verify disconnecting means for car heating and air conditioning
☐ Verify over current protection for proper rating and coordination
☐ Verify that only permitted equipment is located in machine rooms
☐ Verify GFCI receptacles on car tops and pits and GFCI protection for receptacles in machine rooms

☐ Check operation of elevator machine disconnecting means where emergency or standby power is provided

ELECTRIC VEHICLE CHARGING SYSTEMS
☐ Verify that all associated equipment, materials, devices and fittings are listed or labeled
☐ Verify the rating of branch circuit and feeder over current devices
☐ Check that a personal protection system has been provided
☐ Check the location of disconnecting means rated 60 amp or 150 v to ground
☐ Verify the necessity and amount of ventilation for indoor charging locations

EMERGENCY SYSTEMS
☐ Determine the applicability of Article 700
☐ Verify equipment for suitability for approval
☐ Verify load calculations, that system capacity is adequate
☐ Verify that systems capacity is adequate for any nonemergency loads it feeds or that automatic selective load pickup and load shedding and provided
☐ Verify that power sources are suitable and capable of supplying the load within 10 seconds and maintaining the load for at least 1 1/2 hours
☐ Verify that generator, if used, have on site fuel adequate for at least 2 hours of operation and that fuel pumps, if any, are supplied by emergency power
☐ Verify that unit equipment, if used, is fixed in place and connected to the same circuit that supplies normal lighting to the area, ahead of any local switches
☐ Verify that transfer equipment is automatic, identified for emergency use, equipped with means for bypass electrically operated, and mechanically held
☐ Verify that transfer equipment supplies only emergency loads
☐ Verify that emergency wiring is entirely independent of other wiring, except as specifically permitted for common enclosures, fixtures, and boxes
☐ Verify that emergency feeder circuits and equipment in high rise buildings and assembly occupancies of over 1000 persons have suitable fire protection
☐ Verify that emergency branch circuits supply only emergency loads
☐ Verify that power to emergency lighting in areas served by HID fixtures is maintained until normal illumination is restored
☐ Verify that emergency lighting equipment is arranged so that an area will not be left in total darkness by the failure of a single lighting element
☐ Verify that emergency lighting is supplied automatically on failure of the normal lighting element
☐ Verify that all emergency systems over current devices are selectively coordinated

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Electrical Checklist Plan Review Checklist

☐ Check for compliance with NCSBC, NFPA 110 and other applicable building codes

LEGALLY REQUIRED STANDBY SYSTEMS
☐ Determine the applicability of Article 701
☐ Check equipment for suitability for approval
☐ Verify load calculations, that system capacity is adequate
☐ Verify that systems capacity is adequate for any optional standby loads it feeds or that automatic selective load pickup and load shedding and provided
☐ Verify that power sources are suitable and capable of supplying the load within 60 seconds and maintaining the load for at least 1 1/2 hours
☐ Verify that generator, if used, have on site fuel adequate for at least 2 hours of operation
☐ Verify that unit equipment, if used, is fixed in place and connected to the same circuit that supplies normal lighting to the area, ahead of any local switches
☐ Verify that transfer equipment is automatic, identified for standby use, equipped with means for bypass electrically operated, and mechanically held
☐ Check wiring for compliance with the general requirements of Chapters 1 through 4 of NEC (Separation of standby wiring from other general wiring is not required)
☐ Verify that all legally required standby system over current devices are selectively coordinated

OPTIONAL STANDBY SYSTEMS
☐ Determine the applicability of Article 702
☐ Check equipment for suitability for approval
☐ Verify that transfer equipment is suitable for the intended use and capacity
☐ Check wiring for compliance with the general requirements of Chapters 1 through 4 of NEC (Separation of standby wiring from other general wiring is not required)

FIRE PUMPS
☐ Determine the applicability of Article 695
☐ Check equipment for listing
☐ Verify that a reliable source of power is provided
☐ Verify that continuity of power is ensured and supervised
☐ Verify that transformers, other than utility or service transformers, are properly sized and protected
☐ Verify that supply wiring is routed outside of building or is otherwise protected against damage and is independent of other wiring
☐ Verify that appropriate wiring methods are used for power and control wiring
☐ Check equipment for appropriate locations and mounting

CLASS I LOCATIONS
☐ Confirm the classification of areas, including class, division or zone and group
☐ Verify the suitability of the wiring methods being used
☐ Verify that seals are located as required
☐ Check material used for flexible connections, such as explosion proof flex and flexible cords for suitability

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## Electrical Checklist Plan Review Checklist

- Check flexible cord connections and receptacles for suitability
- Verify that equipment temperature markings are not greater than the ignition temperature of the gases or vapors involved
- Verify equipment such as motors, transformers, concurrent devices, switches and controllers, luminaries, heaters, and appliances for proper ratings
- Verify for adequate grounding and bonding paths to the point of grounding for the supply disconnecting means of the building or applicable separately derived systems
- Check for multiwire branch circuits in the classified area

### CLASS II LOCATIONS

- Confirm the classification of areas, including class, division or zone and group
- Verify the suitability of the wiring methods being used
- Verify that seals are located where required, unless raceway arrangements preclude the requirement for seals
- Verify that equipment temperature markings are not greater than the ignition temperature of the dusts involved
- Verify materials used for flexible connections, including flexible cords for suitability
- Verify flexible cord connectors and receptacles for suitability
- Verify that equipment such as motors, transformers, overcurrent devices, switches and controllers, luminaries, heaters and appliances for proper ratings
- Verify adequate grounding and bonding paths to the point of grounding for the supply disconnecting means of the building or applicable separately derived system
- Check for multiwire branch circuits in the classified area

### CLASS III LOCATIONS

- Confirm the classification of area, including class and division
- Verify the suitability of the wiring methods being used
- Verify materials used for flexible connections for suitability
- Verify flexible cord connections and receptacles for suitability
- Verify that equipment operating temperatures are acceptable for the conditions
- Verify equipment such as motors, transformers, overcurrent devices, switches and controllers, luminaries, heater and appliances for proper ratings
- Verify for adequate grounding and bonding paths to the point of grounding for supply disconnecting means of the building of applicable derived system
- Verify installations of crane, hoists, and battery chargers for appropriate location and installation

### COMMERCIAL GARAGES

- Confirm the applicability of Article 511
- Identify the extent and division of the Class I areas
- Verify that suitable wiring methods are used within Class I areas
- Verify that seals are located, installed, and sealed as required in 501.15
- Verify that suitable wiring methods and equipment are used where installed above Class I areas
- Verify that receptacles have GFCI protection where required

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Electrical Checklist Plan Review Checklist

- Verify that battery chargers are not located in classified areas
- Verify that connectors for ELECTRIC VEHICLE CHARGING equipment are not located in Class I locations

**AIRCRAFT HANGERS**
- Confirm the applicability of Article 513
- Identify the extent and division of the Class I areas
- Verify that suitable wiring methods are used within and below Class I areas
- Verify that suitable wiring methods and equipment are used in classified areas of the hangar
- Verify that seals are located in accordance with 501.15
- Verify battery chargers are not located within the Class I Locations

**MOTOR FUEL DISPENSING FACILITIES**
- Confirm the applicability of Article 514
- Identify the extent and division of Class I areas
- Verify that suitable wiring methods and equipment are used within and below Class I areas
- Verify that suitable wiring methods and equipment are used above classified areas
- Verify that seals are located at dispensers and in accordance with 501.15
- Verify that circuits and emergency disconnecting means are provided and that they disconnect all circuit conductors, including any grounded conductors
- Verify that means to disconnect all voltage sources, including feedback voltages are provided

**BULK STORAGE PLANTS**
- Confirm that applicability of Article 515
- Identify the extent and division of the Class I areas
- Verify that suitable wiring methods and equipment are used within and below Class I areas
- Verify that suitable wiring methods and equipment are used above Class I areas
- Verify that seals are located in accordance with 501.15
- Verify that dispensing areas comply with Article 514

**SPRAY APPLICATION, DIPPING AND COATING PROCESSES**
- Confirm the applicability of Article 516
- Identify the extent and division of the Class I and Class II areas
- Identify the extent of any areas that are unclassified due to interlocks and ventilation
- Verify that suitable wiring methods and equipment are used within the Class I areas
- Verify that suitable wiring methods and equipment are used above and below classified areas
- Verify that seals are located in accordance with 501.15

**ASSEMBLY OCCUPANCIES**
- Determine the applicability of Article 518
- Verify that wiring methods are suitable for the occupancy and fire rating of the area
- THEATRES AND AUDIENCE AREAS OF MOTION PICTURE STUDIOS
- Review definitions and determine the applicability of Article 520.

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Electrical Checklist Plan Review Checklist

☐ Verify that wiring methods are suitable for the occupancy and fire rating of the area
☐ Check for compliance with raceway fill requirements
☐ Check fixed stage switchboards for suitability
☐ Check stage switchboard feeders for type and capacity
☐ Check fixed stage equipment other than switchboards for suitability and compliance with specific requirements for the equipment type
☐ Check portable switchboards on stage for proper supply, overcurrent protection, construction, and feeders
☐ Check portable stage equipment other than switchboards for appropriate construction, conductors, protection, and appropriate listings
☐ Verify that dressing rooms are equipped with switches and pilot lights for lights and receptacles adjacent to mirrors
☐ Verify that all metal raceways, metal sheathed cables, and metal frames of equipment are grounded

AGRICULTURAL BUILDINGS
☐ Determine the applicability of Article 547
☐ Check wiring methods for suitability for the occupancy and conditions for protection from physical damage
☐ Verify that equipment that is required to be grounded is grounded by copper equipment grounding conductors.
☐ Verify that any equipment grounding conductors installed underground are insulated or covered copper
☐ Check switches, circuit breakers, controllers and the like for enclosures suitable for the conditions
☐ Verify that lighting fixtures are installed to minimize the entry of dust and water and that fixtures exposed to damage are supplied with guards
☐ Verify that the arrangement of service equipment, distribution equipment, overcurrent protection, and grounding complies with requirements
☐ Verify that an equipotential plane has been provided in concrete floors of livestock containment areas and bonded to electrodes and conductive elements
☐ Verify that GFCI protection has been provided where required

RECREATIONAL VEHICLE PARKS
☐ Review definitions and determine the applicability of Article 551 and Part VI
☐ Verify that all sites have 20 amp, 125 volt receptacles; at least 20% have 50 amp, 125/250 volt receptacles; and at least have 30 amp, 125 volt receptacles
☐ Verify that the voltages of distribution systems are appropriate for sites supplied
☐ Review load calculations, and check sizing of ratings of transformers, panelboards and feeders
☐ Verify that grounded feeder conductors have the same ampacity as ungrounded conductors.
☐ Verify that separate equipment grounding conductors extending from a service or secondary distribution system are run to equipment requiring grounding
☐ Check RV site supply equipment for proper location relative to the vehicle parking stand
☐ Check site supply equipment and disconnecting means for proper access, mounting height, working space and marking

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Electrical Checklist Plan Review Checklist

MARINAS AND BOAT YARDS
☐ Determine the applicability of Article 555
☐ Verify feeder and service calculations for compliance with requirements
   Verify that wiring methods are suitable for wet locations and that portable power cables, where used, are extra-
   hard-usage type listed for wet locations and sunlight
☐ Verify that service equipment for floating docks or marinas is located adjacent to, but not on or in, the floating
   structure
☐ Verify that equipment requiring grounding is connected to an insulated copper equipment grounding conductor
   included with feeders and branch circuits
☐ Verify that shore power receptacles are of an appropriate grounding type and have appropriate ampere rating
☐ Verify that receptacles used for shore power are supplied by individual branch circuits with voltage and current
   ratings corresponding to the receptacles
☐ Verify that general use receptacles not used for shore power are GFCI protected
☐ Check wiring in motor fuel dispensing stations for compliance with Article 514

PERMANENTLY INSTALLED SWIMMING POOLS
☐ Review definitions and determine the applicability of Article 680
☐ Check overhead conductors clearances for conformance with requirements
☐ Check underground wiring for suitability, clearances from pool, and minimum cover requirements
   Verify that water, metal parts of pool and other nearby electrical equipment and metal parts are bonded to an
   appropriate equipotential bonding grid, using appropriate methods
☐ Verify that general user receptacles are not located within 6ft (1.83m) of pool walls and all receptacles within
   20ft (6m) of pool walls are GFCI protected
☐ Verify that any receptacles closer than 6ft (1.83m) of pool walls are used for equipment, are single, grounded,
   locking type, and are GFCI protected
☐ Verify that luminaries and ceiling fans are located so that required clearances are maintained
☐ Verify that luminaries and ceiling fans are GFCI protected where GFCI is required
☐ Verify that switches are located at least 5ft (1.5m) from pool walls or separated from pool by a permanent
   barrier
☐ Verify that metal parts of pools, water and nearby equipment and metal parts are bonded to an appropriate
   equipotential bonding grid, using appropriate methods
☐ Verify that all equipment required to be grounded is grounded by insulated copper equipment grounding
   conductor of the proper size
☐ Verify that a disconnecting means is provided accessible, located within sight of pool equipment, and not
   located within 5ft (1.5m) of pool walls

SPAS AND HOT TUBS: ALL INSTALLATIONS
☐ Check spa and hot tub equipment for suitability for approval
☐ Review the checklist for permanent pools for compliance with the applicable provisions of part I or II of Article
   680 (modified for indoor installations)
☐ Verify outlets supplying a self contained spa or hot tub or a packaged spa or hot tub assembly for integral or
   separately provided GFCI proction
☐ Verify compliance with requirements for disconnecting means

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topics on this list.
Electrical Checklist Plan Review Checklist

SPAS AND HOT TUBS: INDOOR INSTALLATIONS ONLY
- Verify that at least one GFCI protected receptacle on a general purpose branch circuit is located between 5ft and 10ft (1.5m and 3.0m) of the walls of the spa or hot tub
- Verify that any receptacles used to supply power to a spa or hot tub are GFCI protected
- Verify that luminaries and paddle fans are spaced as required from spa or hot tub walls and above maximum water level and that GFCI protection is provided, as required
- Verify that wall switches are located at least 5ft (1.5m) from the inside walls of the spa or hot tub
- Verify that all parts are required to be grounded or bonded are grounded or bonded using appropriate methods

FOUNTAINS
- Review definitions and determine the applicability of Part V of Article 680
- Verify fountain equipment for suitability for approval
- Verify that fountain equipment has GFCI protection unless supplied through a suitable transformer at 15 volts or less
- Verify that all parts that are required to be grounded or bonded are grounded or bonded using appropriate methods
- Verify that signs installed in fountains are GFCI protected, located more than 5ft (1.5m) from fountain walls, not portable, and otherwise comply with Articles 600 and 250

THERAPEUTIC POOLS AND TUBS
- Verify that outlets for therapeutic tubs are GFCI protected (separate or integral) unless supplying field assembled tubs rated three phase or over 250 volts
- Verify that all parts of therapeutic tubs that are required to be grounded or bonded are grounded or bonded using appropriate methods
- Verify that all receptacles within 5ft (1.5m) of a therapeutic tub are GFCI protected
- Verify that all luminaries used in areas of therapeutic tubs are of the totally enclosed type

HYDRO MASSAGE BATHTUBS
- Verify hydro massage bathtub equipment for GFCI protection
- Verify that metal parts required to be bonded are connected together with a minimum 8 AWG solid copper bonding jumper

HEALTH CARE FACILITIES
- Review definitions and determine the proper classification of the areas
- Verify that insulated copper conductors in metal raceways or equivalent cables are used to provide equipment grounding for branch circuits in patient care areas
- Check for bonding between normal and essential branch circuit panelboards serving any single patient care area
- Verify that each general care area patient bed location has at least two (2) branch circuits, one from the normal system and one from the emergency system
- Verify that each general care area patient bed location is provided with a minimum of four (4) receptacles
- Check for temper resistant receptacles or covers in the pediatric location of general care areas
- Verify that each critical care area patient bed location has at least two (2) branch circuits, one from the normal system and one from the emergency system

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Electrical Checklist Plan Review Checklist

- Verify that each critical care area patient bed location has at least one receptacle supplied by an emergency circuit dedicated to that bed location
- Verify that each critical care area patient bed location has at least six (6) receptacles
- Verify that at least one receptacle in a critical care area bed location is connected to a branch circuit from a separate normal or emergency source
- Verify that all patient bed location receptacles are hospital grade and that all emergency receptacles are identified
- Check wet locations for protection by GFCI devices or, where interruption cannot be tolerated, use of isolated power systems

THESE NEXT CHECK LIST ITEMS APPLY TO HOSPITALS & AMBULATORY CARE FACILITIES WITH CRITICAL CARE AREAS

- Review the essential electrical systems, and verify that emergency and equipment systems are provided
- Review the emergency system, and verify that life safety and critical branches are provided
- Verify load calculations for the essential system, and verify that capacity of power sources and feeders is adequate
- Verify that the emergency system wiring (life safety and critical branches) is independent of, and separated from, other wiring and equipment
- Verify that mechanical protection for emergency system wiring is provided by non-flexible metallic raceways or Type MI cable
- Verify that only those loads that are intended for connection to the life safety branch are supplied by the life safety branch
- Determine whether hazardous (classified) anesthetizing locations exist in the facility
- Verify that appropriate wiring methods and equipment are used in and above hazardous (classified) anesthetizing locations
- Verify that two (2) independent sources are provided for essential electrical system and that the alternative source is suitable
- Verify that power circuits in flammable anesthetizing locations are isolated from other power distribution systems
- Verify that one or more battery powered emergency lighting units are provided in anesthetizing locations
- Verify that supply circuits to X-ray equipment are adequate and supplied through appropriate wiring methods and connections
- Check location, capacity, and type of disconnecting means of X-ray equipment
- Verify that supply circuits to X-ray equipment meet minimum ampacity and overcurrent rating requirements
- Verify that enclosures for high voltage parts and non-current carrying metal parts of X-ray equipment are grounded
- Verify that low voltage systems in patient care areas have insulation and isolation equivalent to power distributions systems
- Check isolated power systems (where installed) for proper installation, features, and conductor identification
- Verify second level of GFPE where applicable in hospital and other health care facilities

THESE NEXT CHECK LIST ITEMS APPLY ONLY TO NURSING HOMES AND LIMITED CARE

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Electrical Checklist Plan Review Checklist

FACILITIES WHERE LIFE SUPPORT EQUIPMENT OR GENERAL ANESTHESIA IS USED

☐ Verify the essential electrical system, and verify that life safety and critical branches are provided
☐ Verify load calculations for the essential system, and verify that capacity of power sources and feeders is adequate
☐ Verify that the emergency system wiring (life safety and critical branches) is independent of, and separated from, other wiring and equipment (Separation of the critical branch is not required)
☐ Verify that only those loads that are intended for connection to the life safety branch are supplied by the life safety branch
☐ Verify that two (2) independent sources are provided for essential electrical system and that the alternative source is suitable

THESE NEXT CHECK LIST ITEMS APPLY ONLY TO OTHER HEALTH CARE FACILITIES, INCLUDING CLINICS, MEDICAL AND DENTAL OFFICES, AND AMBULATORY HEALTH CARE FACILITIES WITHOUT CRITICAL CARE AREAS

☐ Verify that an essential electrical system is provided where required
☐ Verify that an alternative power source is provided that is adequate and designed specifically for the purpose
☐ Determine whether hazardous (classified) anesthetizing locations exist in the facility
☐ Verify that appropriate wiring methods and equipment are used in and above hazardous (classified) anesthetizing locations
☐ Verify that power circuits in flammable anesthetizing locations are isolated from other power distribution systems
☐ Verify that one or more battery powered emergency lighting units are provided in anesthetizing locations
☐ Verify that supply circuits to X-ray equipment are adequate and supplied through appropriate wiring methods and connections
☐ Check location, capacity, and type of disconnecting means of X-ray equipment
☐ Verify that supply circuits to X-ray equipment meet minimum ampacity and overcurrent rating requirements
☐ Verify that enclosures for high voltage parts and non-current carrying metal parts of X-ray equipment are grounded
☐ Verify that low voltage systems in patient care areas have insulation and isolation equivalent to power distributions systems
☐ Check isolated power systems (where installed) for proper installation, features, and conductor identification
☐ Verify second level of GFPE where applicable in hospital and other health care facilities

Note: This checklist provides a guideline of topics that may be reviewed during plan review. Plan review is not limited to the topics on this list.