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SPECIAL ELECTRICAL INSPECTION, OBSERVATION & TESTING AGREEMENT



COMMUNITY DEVELOPMENT DEPARTMENT • 345 N EL DORADO STREET • STOCKTON, CA 95202 • (209) 937-8561
www.stocktonca.gov/buildinginspection

Prior to issuance of a permit, this form must be completed and approved by the Building Department for projects requiring special electrical inspection, observation, and/or testing in accordance with the California Electrical Code (CEC) and the City of Stockton Building Department. Before permit issuance, all parties must sign this agreement. Please note that failure to comply with these requirements could result in added costs and/or delays in the project.

Part I – Statement of Special Electrical Inspection

Project Name: _____ Date: _____

Project Address: _____ Permit Number: **BP** _____

City Approved Testing/Inspection Agencies

Agency 1: _____ Phone Number: _____

Email: _____

Agency 2: _____ Phone Number: _____

Email: _____

Part II – Electrical Inspection, Observation, and Testing Agreement

Before a permit can be issued: When special electrical inspection, observation, and testing is required by CEC Section 90.4, 90.7 or the Building Official, the registered design professional shall prepare an electrical inspection, observation, and testing program, which shall be submitted, to the Building Official for approval prior to issuance of the building permit. A pre-construction conference with the parties involved may be required to review the requirements and procedures.

Approval of special electrical inspectors: The special inspection firm(s) named above have been authorized to perform the special electrical inspection and testing services designated in this agreement, and in accordance with the CEC requirements, and to report all activities to the Building Official, and other parties as listed. It is understood that special electrical inspections are required in addition to the normal inspections performed by the Building Inspector. The special electrical inspector shall be employed by the owner (other than owner – builder/developer), the registered design professional, or an agent of the owner, BUT NOT the contractor, or any other person responsible for the work (such as an owner-builder/developer). Special inspectors may have no financial interest in projects for which they provide special inspection. Special electrical inspectors shall be approved by the building department prior to performing any duties. Special electrical inspectors shall submit their qualifications and are subject to personal interviews for prequalification. Special inspectors shall display approved identification, as stipulated by the Building Official when performing the function of special inspector. Only the City approved special inspection agency of record shall sample, transport and test material. Special inspection and testing shall meet the minimum requirements of the CEC. The following conditions are also applicable:

A. Duties and Responsibilities of the Special Electrical Inspector:

1. Observe work – The special inspector shall observe the work for conformance with the building department **approved (stamped)** designs drawings and specifications and applicable workmanship provisions of the California Electrical Code. Architect/Engineer-reviewed shop drawings may be used only as an aid to inspection. Special electrical inspections are to be performed as outlined by the registered design professional in responsible charge and as approved by the building department.
2. **Report nonconforming items** – The special inspector shall bring nonconforming items to the immediate attention of the contractor and note all such items in the daily report. If any items are not resolved in a timely manner or are

about to be incorporated in the work, the special inspector shall immediately notify the building department by telephone or in person, notify the engineer or architect, and post a discrepancy notice.

3. **Furnish daily and weekly reports** – Each special inspector shall complete and sign both the special inspection record and the daily report form for each day's inspections to remain at the jobsite with the contractor for review by the building inspector. The reports shall include description of daily inspections and tests made with applicable locations, listing of all nonconforming items, report on how nonconforming items were resolved or unresolved as applicable, and itemized changes authorized by the architect, engineer and Building Official if not included in nonconformance items. **The daily and weekly reports shall be emailed on a daily and weekly basis to the Building Official (Sreports@stocktonca.gov). Each email subject line shall have the following naming format: Permit Number – Address – Date**
4. **Furnish final report** – The special inspector or inspection agency shall submit a final wet stamped and signed report to the Building Official stating that all items requiring electrical observation and testing were fulfilled and reported and, to the best of his or her knowledge, in conformance with the approved design drawings, specifications, approved change orders and the applicable workmanship provisions of the CEC. Items not in conformance, unresolved items or any discrepancies in inspection coverage shall be specifically itemized on an addendum to this report. **The final report shall be emailed prior to scheduling final building inspection to the Building Official (Sreports@stocktonca.gov) Each email subject line shall have the following naming format: Permit Number – Address – Date**

B. Contractor Responsibilities:

1. Notify the special inspector – The contractor is responsible for notifying the special inspector regarding individual inspections for items listed on the attached schedule and as noted on the building department approved plans.
2. Notify the Building Department – The contractor is responsible for notifying the City's Building Department. **City approval is required prior to proceeding.** General contractor shall notify the Building Department at (209) 937-8561 at least 24 hours in advance for each day special inspection will be conducted listed on the attached schedule and as noted on the Building Department approved plans.
3. Provide access to approved plans and retain special inspection records.

C. Owner Responsibilities: The project owner or the engineer or architect of record acting as the owner's agent is responsible for funding special inspection services.

D. Designer Responsibilities:

1. Complete the Electrical Inspection, Observation & Testing Schedule – The engineer or architect of record shall specify electrical inspections/observations required in the construction documents and list these items on the Electrical Inspection, Observation & Testing Schedule on the plans.
2. Respond to field discrepancies – The engineer or architect of record shall respond to uncorrected field deficiencies in design, material, or workmanship observed by the special inspector.
3. Submit design changes – The engineer or architect of record is responsible for any design changes, in addition to acknowledgment and approval of shop drawings which may detail structural information, and for submission of such changes to the Building Official for approval.

E. Building Department Responsibilities:

1. Approve special inspection – The building department shall approve all special inspectors and special inspection requirements.
2. Enforce special inspection – Work requiring special inspection and the performance of special inspection shall be monitored by the building inspector. **Building Department approval must be obtained prior to the operation of any electrical equipment in addition to that of the special inspector.**
3. Issue Certificate of Occupancy – The Building Official may issue a Temporary Certificate of Occupancy or a Certificate of Final Completion and Occupancy after all special inspection reports and the final compliance report have been submitted and accepted.

Acknowledgements

The undersigned hereby affirm, under penalty of law that the electrical inspection, observation, and testing program is in accordance with the requirements of the CEC and the City of Stockton. The undersigned has used all reasonable diligence in completing this form and to the best of his/her knowledge the information contained herein is true and complete. The undersigned hereby certifies under the penalty of perjury under the laws of the State of California that the foregoing is true and correct.

I have read and agree to comply with the terms and conditions of this agreement:

Registered Design Professional in Responsible Charge:

Name:		License Number:
Phone Number:	Email Address:	
Signature:		Date:

Owner's Authorization:

Name:		
Phone Number:	Email Address:	
Signature:		Date:

General Contractor:

Name:		License Number:
Phone Number:	Email Address:	
Signature:		Date:

Special Inspection/Testing Agency Engineer:

Name:		License Number:
Phone Number:	Email Address:	
Signature:		Date:

Building Department's Acceptance:

Name:		Title:
Signature:		Date:

Part III – Electrical Inspection, Observation, and Testing Schedule

The schedule below shall be completed by the Engineer-of-Record for the project. The inspections listed are in accordance with the California Building Code and California Electric Code. Refer to the **City Approved** drawings and/or project specifications for additional inspections, tests, or requirements.

Indicate in the table below which inspections are required for this project. Check the appropriate box to denote either continuous (C) or periodic (P) inspection required.

In addition to the City of Stockton Building Department Inspections required by CBC, Electrical Inspection/Observation shall be provided when required by the City of Stockton when any of the following conditions exist:

Required Special Inspections and Tests	Check if Required	
	C	P
1. Installation or alteration of high voltage electrical systems and equipment over 600 volts which fall within the scope of CEC, Article 490; or		
2. Installation or alteration of that portion of a healthcare facilities electrical system which falls within the scope of Article 517 of the CEC, including such systems installed in facilities where outpatient surgical procedures are performed. (OSHDP 3); or		
3. Installation or alteration of electrical systems within locations classified as hazardous by provisions of the CEC. except for gasoline dispensing installations and systems located within storage garages, repair garages or lubricatoriums (CEC, Article 511 & 514); or		
4. Installation of Critical Operations Power Systems (COPS) (CEC, Article 708); or		
5. Installation of Solar Photovoltaic Systems greater than 100 kVA (CEC, Article 690); or		
6. Installation of unlisted equipment (CEC, Article 90.7); or		
7. When required by Registered Design Professional in Responsible Charge for the electrical design, or		
8. When such inspection/observation is specifically required by the Building Official.		

Part IV – Special Electrical Inspector Job Tasks

The job tasks listed below are intended to represent the basic inspection tasks and do not necessarily describe every detail of the job descriptions. For more specific tasks, consult specifications, codes, and standards such as ACI, ASTM, IEEE, U.L., Etc.

1. Ground-Fault Protection Performance Test.

- a. Visual Inspection:
 - 1) Inspect for physical damage and compliance with engineered drawings and specifications.
 - 2) Verify proper nameplate markings and ratings.
 - 3) Verify integrity of grounded conductor.
 - 4) Verify pickup and time delay settings are in accordance with settings provided by the engineer.
- b. Mechanical Inspection:
 - 1) Inspect for proper mechanical operation.
- c. Electrical Tests:
 - 1) Tests shall comply with engineered plans and specifications.
 - 2) Tests shall be performed in accordance with manufacturers recommendations or nationally recognized standards and practices.
 - 3) Test grounded conductor insulation resistance to ground.
 - 4) IV. Test relay pickup current by current injection at the sensor and operate the circuit interrupting device.
 - 5) Test relay timing.
 - 6) Test primary control voltage at not more than 57 percent of its rated voltage.

2. Switchboards, Panelboards, Motor Control Centers, and Other Equipment Rated 1000 Amperes or more, or over 600 volts.

- a. Visual Inspection:
 - 1) Inspect for physical damage and compliance with engineered drawings and specifications.
 - 2) Verify proper nameplate markings and ratings.
 - 3) Inspect for proper anchorage, support, and alignment.
 - 4) Verify barrier installation.
 - 5) Verify connection and termination points for proper torque and alignment.
- b. Mechanical Inspection:
 - 1) Inspect interlocks, switches, draw-out breakers, and auxiliary devices for proper mechanical operation.
- c. Electrical Tests:
 - 1) Tests shall comply with engineered plans and specifications.
 - 2) Tests shall be performed in accordance with manufacturers' recommendations or nationally recognized standards and practices.
 - 3) Test grounded conductor insulation resistance and verify continuity of equipment grounding system.
 - 4) Perform insulation resistance test on each bus and protective device. Test phase-to-phase and phase-to-ground.
 - 5) Perform dielectric voltage-withstand test on each bus and protective device. Test phase-to-phase and phase-to-ground.
 - 6) Perform phase test on double-ended systems.
 - 7) Test control power transformer, control power circuits and potential circuits.
 - 8) Test control and protective devices for proper operation.

3. Transformers rated 100 KVA or more Single Phase and 300 KVA or more three phase.

- a. Visual Inspection:
 - 1) Inspect for physical damage and compliance with engineered drawings and specifications.
 - 2) Verify proper nameplate markings and ratings.
 - 3) Inspect for proper anchorage and support.
 - 4) Inspect for proper equipment and core grounding.
 - 5) Verify compliance with manufacturer installation requirements.

- b. Mechanical Inspection:
 - 1) Inspect auxiliary devices for proper mechanical operation.
 - c. Electrical Tests:
 - 1) Tests shall comply with engineered plans and specifications.
 - 2) Tests shall be performed in accordance with manufacturer recommendations or nationally recognized standards and practices.
 - 3) Perform insulation resistance test on each winding. Test winding-to-winding and windings-to-ground.
 - 4) Perform a turns-ratio test for each winding at all tap settings.
 - 5) Test control power transformer, control power circuits and potential circuits.
 - 6) Test control and protective devices for proper operation.
- 4. Conductors that Supply Equipment Rated at 1000 Amperes or More, or Over 600 Volts.**
- a. Visual Inspection:
 - 1) Inspect for physical damage and compliance with engineered drawings and specifications.
 - 2) Verify proper markings and ratings.
 - b. Electrical Tests:
 - 1) Tests shall comply with engineered plans and specifications.
 - 2) Tests shall be performed in accordance with manufacturer recommendations or nationally recognized standards and practices.
 - 3) Perform insulation resistance test on each conductor. Test phase-to-phase and phase-to-ground.
 - 4) Perform dc high-potential test on each conductor. Test phase-to-phase and phase-to-ground.
- 5. Emergency and Standby Power Systems: Switchboards, Panelboards, Distribution Boards, Transfer Equipment, Power Source, Conductors, Fire Pumps, Exhaust and Ventilation Fans.**
- a. Visual Inspection:
 - 1) Inspection for physical damage and compliance with engineered drawings and specifications.
 - 2) Verify proper markings, ratings, and signs.
 - 3) Inspect equipment for proper anchorage and support.
 - 4) Inspection for proper barriers, separation, protection, and location.
 - 5) Verify instruction manuals, special tools, testing devices, and manufacturer recommended spare parts are available.
 - 6) Verify maintenance and operational testing program is in place and maintained on the premises.
 - b. Mechanical Inspection:
 - 1) Inspect equipment for proper mechanical operation.
 - 2) Verify functional operation of system. Perform manual transfer operation.
 - c. Electrical Tests:
 - 1) Tests shall comply with engineered plans and specifications.
 - 2) Tests shall be performed in accordance with manufacturer recommendations or nationally recognized standards and practices.
 - 3) Test control and protective devices for proper operation.
 - 4) Perform phase rotation test
 - 5) Perform insulation resistance test on feeder conductors and equipment. Test phase-to-phase and phase-to-ground
 - 6) Perform automatic load transfer test. Test normal and emergency power, or normal and standby power, or both. Simulate loss of emergency and normal power or standby and power, or both. Simulate all forms of single-phase conditions.
 - 7) Conduct operational test on system under load conditions.
- 6. Hazardous Locations.**
- a. The inspection of the installation or alteration of electrical systems within locations classified as hazardous by provisions of the California Electrical Code, except for gasoline dispensing installations and systems located within storage garages, repair garages or lubricatoriums shall be as determined by the Building Official and Registered Design Professional in Responsible Charge (RDPRC) and be defined at the pre-construction conference.

7. Installation of Unlisted Equipment

a. Visual Inspection:

- 1) Inspection for physical damage and compliance with engineered drawings and specifications.
- 2) Verify proper markings, ratings, and signs.
- 3) Inspect equipment for proper anchorage and support.
- 4) Inspection for proper barriers, separation, protection, and location.
- 5) Verify compliance with manufacturer installation requirements.
- 6) Verify instruction manuals, special tools, testing devices, and manufacturer recommended spare parts are available.
- 7) Verify maintenance and operational testing program is in place and maintained on the premises.

b. Mechanical Inspection:

- 1) Inspect equipment for proper mechanical operation.
- 2) Verify functional operation of system.
- 3) Verify functional operation of all safety features, emergency stops, etc.

c. Electrical Tests:

- 1) Tests shall comply with engineered plans and specifications.
- 2) Tests shall be performed in accordance with manufacturer recommendations or nationally recognized standards and practices.

Part V – Approved Special Electrical Inspection and Testing Agencies

Testing Laboratories recognized by the U.S. Department of Labor Occupational Safety & Health Administration (OSHA) Nationally Recognized Testing Laboratories (NRTL) Program, a part of OSHA's Directorate of Science, Technology, and Medicine, are acceptable to the City of Stockton Building Department for listing and labeling of electrical devices, equipment, and products within each NRTL's scope of recognition.

Contact OSHA or the NRTL for additional information, the most current list of NRTLs is found here:

<https://www.osha.gov/nationally-recognized-testing-laboratory-program/current-list-of-nrtls>

Organizations Currently Recognized by OSHA as NRTLs:

- [Bay Area Compliance Laboratories \(BACL\)](#)
- [Bureau Veritas Consumer Products Services, Inc. \(BVCPS\)](#)
- [CSA Group Testing and Certification Inc.](#)
- [DEKRA Certification, Inc.](#)
- [Eurofins Electrical and Electronic Testing NA, Inc.](#)
- [FM Approvals \(FM\)](#)
- [Intertek Testing Services NA, Inc. \(ITSNA\)](#)
- [LabTest Certification Inc.](#)
- [Nemko North America, Inc. \(NNA\)](#)
- [NSF International \(NSF\)](#)
- [QAI Laboratories, LTD \(QAI\)](#)
- [QPS Evaluation Services Inc.](#)
- [SGS North America, Inc.](#)
- [TUV SUD America, Inc. \(TUVAM\)](#)
- [TUV Product Services GmbH \(TUVPSG\)](#)
- [TUV Rheinland of North America, Inc. \(TUV\)](#)
- [Underwriters Laboratories Inc. \(UL\)](#)

Local Testing Agencies Approved by the City of Stockton (NETA Accredited Company):

- [Apparatus Testing and Engineering](#)
11300 Sanders Dr., #29
Rancho Cordova, CA 95742
(916) 853-6280
- [Power Systems Testing Co.](#)
2267 Claremont Ct.
Hayward, CA 94545
(510) 783-5096
- [Industrial Test Inc.](#)
4021 Alvis Ct. #1
Rocklin, CA 95677
(916) 632-8378
- [Find a NETA Accredited Company](#)