



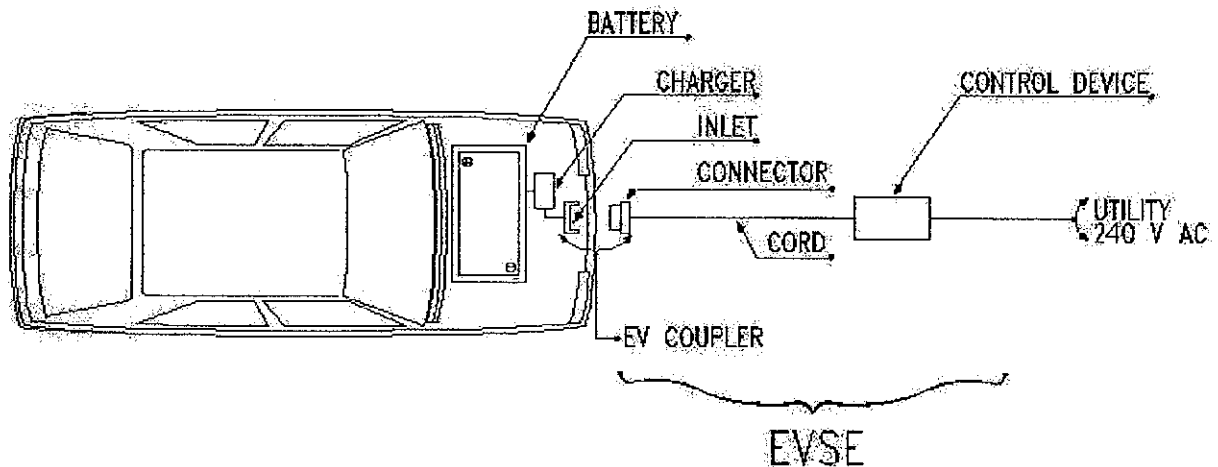
CODE REFERENCE (S):

2007 California Electrical Code; Underwriters Laboratory (UL) listed charging system

ISSUE (S):

A number of automakers are currently mass producing electric vehicles and will hit the auto industry around the end of 2010. Therefore efficient permitting and inspection for EV electric charging system will be required to help encourage the use of EV in California. Ideally with the proper documentation, permits to install Electric Vehicle Supply Equipment (EVSE) could be issued over-the-counter. As most jurisdictions have not dealt with EV charging system, a TUCC EV sub-committee was formed in June, 2010 to research and understand the technical requirement for EV and develop a guideline to expedite the permit and inspection process.

EV Sample Charging System:



Electric Vehicle Supply Equipment (EVSE) consists of the connector, cord, and interface to utility power. Currently the interface between the EVSE and utility power will be directly hard-wired to the control device, and each automaker has its own EVSE design. Around the end of 2010, a single design called the J1772 Standard EV coupler will be available. J1772 will be applicable for all electric vehicles.

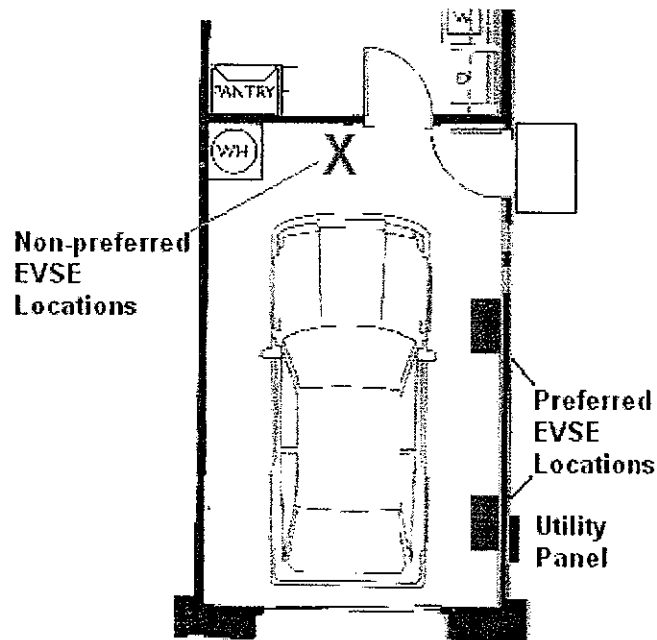
There are 2 levels of charging system for SFR – Level 1 (120 VAC, 15/20 A) and Level 2 (240 VAC, 40A). Level 2 is most likely be used because of less time to charge the vehicle.

PROPOSED GUIDELINE:

An electrical permit is required for an EV charging system to be installed in the garage or carport of a SFR. The following information is required for a permit:

1. EV charging system information : level 1 or 2, EVSE system with UL listed number or other approved nationally recognized testing laboratory, in compliance with UL2202, "Standard for Electric Vehicle (EV) Charging System Equipment"
2. Existing electrical service panel information at the residence. Include EVSE load and circuit size to determine if electric panel upgrade is required.
3. Panel upgrade and electrical wiring shall be in conformance with the California Electrical code
4. Identify if a second electric meter is required to be installed because of electric utility rate for EV charging
5. Clarify EVSE location

EVSE shall be installed in accordance with manufacturer's guideline and must be suitable for the environment (indoor/outdoor).



6. Manufacturer installation guideline has to be available for the inspector at the site.