



DEPARTMENT OF ADMINISTRATIVE SERVICES

PROPOSED CHANGE OF THE CONNECTICUT STATE BUILDING CODE AND FIRE SAFETY CODE

DATE SUBMITTED: 4/15/24

CODE INFORMATION

Proposed change to: [X] Building Code [ ] Fire Safety Code

Code section(s): NEC 90.2 Scope

PROPONENT INFORMATION

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PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):

Restore the original wording of the NEC scope to include modifications to R.V. Wiring that modify or add to the original R. V. Manufacturer's installation.

Proposed text change, addition or deletion (attach additional information as needed):

(A) (1.) c. Utility Connections, additions, and alterations to Recreational Vehicles, where 2 or more R.V.s are located, and where parked for more than 30 days.

Supporting data and documents (attach additional information as needed)

See letter attached.

- [ ] This Proposal is original material. (Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought or research and, to the best of his/her knowledge, is not copied from another source.)
[X] This Comment is not original material, its source (if known) is as follows: (such as material / code development proposal from a prior development cycle or proposal submitted to model code committee etc.) Original wording in the NEC.
[X] I would like to make an in-person presentation of my proposal.

Release

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Proponent's Signature (Handwritten signature)

Douglas E. Colter
Printed Name

PLEASE EMAIL (PREFERRED) TO DAS.CodesStandards@CT.GOV OR MAIL OR FAX (SEE BELOW)

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# **Southeastern Connecticut Council of Governments**

*Regional Building Official Service*  
**5 Connecticut Avenue, Norwich, CT 06360**

April 15, 2024

Dear Codes and Standards Committee:

In support of my code modification application, I am sharing with you a scenario encountered in my jurisdiction that illustrates why exempting recreational vehicle modifications from the electrical code results in disaster.

## **Scenario:**

An 800 site campground facility (known to be substantially constructed after 10/1/1970) has various 200 amp feeder legs feeding multiple camp trailer sites in a parallel connection, in a series configuration along the feeder.

This park is very densely populated with a park model unit located every 50', often with less than 25' separations.

At least half of this facility hosts "permanent" park model type trailers, or recreational vehicle type trailers that are never moved, and used seasonally under a zoning permit that permits use from May 1<sup>st</sup> to September 30<sup>th</sup>, plus up to 30 days in the winter season.

Many of these park model trailers have added wood frame structures that started as decks, which then morphed into screen rooms and eventually glassed in "3 season porches". These ancillary structures have spotty and inconsistent permit and inspection records at Town Hall.

It is unknown if these "vehicles" are registered in other states, as no license plates were observed, but they are certainly permanent in nature, although perhaps not by code definition.

At this location, the camp site power pedestal, known as the Recreational Vehicle Site Supply Equipment, provides locally fused 50 amp 240 volt, 30 amp 120 volt, and 20 amp 120 volt outlet receptacle options.

Each feeder leg is, ostensibly, designed per article 551 part VI (or the equivalent section in effect at the time of installation) to have a certain percentage of these sites assumed to be 50, 30, and 20 in use, however, actual use is now 12-20 sites using the 50 amp connection on a 200 amp feeder circuit. This has substantially overloaded the feeders and caused brown-outs, equipment failures and wire faults resulting in unsafe conditions, heat damaged components, severe voltage drops, and missing neutral continuity, as well as unqualified persons increasing the feeder

overcurrent protection device beyond the system's capacity. The NEC load calculations do not contemplate all of the sites on each feeder availing themselves of the 50 amp connection, never less all three available connections simultaneously.

Further, there is a substantial amount of amateur wiring of all descriptions for the servicing of the ancillary structures, outdoor convenience outlets, golf cart charger connections, lighting, and air conditioning. Some of this wiring originates from the factory installed R.V. distribution panel, and some of it is wired directly to the RV Site Supply Equipment using the other available taps.

As the park design did not intend the sites to use more than one power source, and the park design only considered a relatively small percentage of sites to use the 50 amp connection, they now have sites using up to 100 amps.

In short, the lack of permits and inspections, and a lack of clear enforcement jurisdiction over the years has led to a very large fire and electrical safety problem placing hundreds of people in jeopardy.

#### **Action allowed under the current CSBC modification to 90.2**

Accordingly, as the Building Official and in consultation with a State Licensed E. I. of known repute, I ordered all overloaded and faulted feeders to be disconnected, as they were "unsafe". Under a duly issued electrical permit, a licensed electrical contractor is inspecting all of the supply equipment, making repairs and reducing site capacity. The Contractor has discovered many sites which had multiple taps, and has noted the installation of mini-split AC units and amateur wiring throughout the complex.

While I am confident of jurisdiction and proper enforcement of the electrical code regarding the park distribution system and main utility connections to R. V's, and I am confident of jurisdiction over the ancillary structures, I am unclear on the line of authority over the R. V units themselves. This includes installation of heat pump/air conditioner units, and electrical resistance heaters.

I can't imagine any life safety argument that would justify keeping the Building Official from regulating wiring in an R. V. that results in these circumstances.

While Article 90.2 in the printed version of the NEC clearly gives the inspector jurisdiction over Recreational Vehicle Wiring, as does Article 551 and 552, the 2022 CT State Modification reduced this scope to the Utility Connection only, however it is noted that articles 551 and 552 are not deleted.

I am not aware of the purpose of the CSBC modification to 90.2, but this park is an example of the consequence of exempting R.V.'s from regulation contemplated by the printed version of the NEC.

Further, there are R. V. type solar systems installed that may not have the UL 1741 shutdown requirement that would disconnect it when utility power is lost, thus risking significant back-feed onto the park feeders and eventually the utility. A male end of a disconnected trailer connection cable would be live in this instance.

### Summary

I strongly encourage the Codes and Standards committee to return to the original wording in the NEC and restore jurisdiction to the building official over R. V. wiring modifications beyond the original R. V. Manufacturer's installation. I have offered wording on the mod request form that would trigger this for units parked for more than 30 days, as a compromise to avoid issues with trailers that actually travel, vs. trailers that are in fact, if not in legal interpretation permanently parked. If this is still a problem for you then at least make a differentiation between an R. V. and park model R. V.. See the definitions in articles 551.2 and 552.2, and the fine print note advice that these items should be treated differently.

R. V.'s in actuality may not be what the Codes and Standards committee has in mind. Please see example photos in the addendum

Sincerely,



Douglas E. Colter, Licensed Building Official

Southeastern CT Council of Governments  
Regional Building Official Service  
Serving the towns of Bozrah, Franklin, Preston, and Montville.



