



Canadian Standards Association  
Mississauga, Ontario  
**To the Part I Committee**

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Subject No. 3199

Chair: T. Olechna

Date: January 5, 2005

Title: Number of Consumer's Services, Rule 6-104

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**Submitted by:** Ted Olechna, of Electrical Safety Authority, Mississauga, Ontario on August 25, 2004.

**Proposal:** Amend Rule 6-104 as follows:

**6-104 Number of Consumer's Services Permitted in or on a Building**

The number of consumer's services of the same voltage and characteristics, terminating at any one supply service, run to, on, or in any building, shall not exceed ~~six~~ four, unless there is a deviation allowed in accordance with Rule ~~2-030~~.

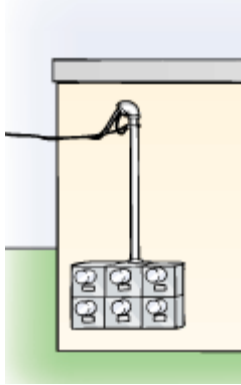
**Reasons for Request:** The rule states that only 4 are permitted but the reality is that we are seeing 6, and permitting these to be installed as per 2-030. In addition delete the deviation requirements because it is already specifically mentioned in 2-030 as a general requirement. If you include this in this rule you should theoretically have it in all rules.

**Supporting Information:** The rule states the following:

6-104 Number of Consumer's Services Permitted In or On a Building. The number of consumer's services of the same voltage and characteristic, terminating at any one supply service, run to, on, or in any building, shall not exceed four, unless there is a deviation allowed in accordance with Rule 2-030.

It is interesting to note that in doing some research on the topic there was an Ontario amendment permitting up to 6 subdivisions of the main service. When this became a Canadian rule in 1977 it was limited to 4 but with special permission. Yet we have been permitting the 6 all this time. Warp back in time. The NEC limits to six as well, and there are approved devices that actually are being installed

The NEC in conjunction with UL standards permit up to six consumer services as per the diagram below



### 225.33 Maximum Number of Disconnects.

(A) General. The disconnecting means for each supply permitted by 225.30 shall consist of not more than six switches or six circuit breakers mounted in a single enclosure, in a group of separate enclosures, or in or on a switchboard. There shall be no more than six disconnects per supply grouped in any one location.

**Subcommittee Deliberation:** Four individuals agreed and three disagreed.

The individuals who disagreed, did so on the basis that there might be issue with the utility supplying six services. From a Code perspective, there were no safety reasons for not agreeing, and at the end of the day the connection of even four services is up to the utility, so increasing to six does not change, but rather harmonizes with the NEC and eliminates the 2-030 reference. The products are available to the installer, and are certified with up to six being available.

Comments from members

Comment 1

I support the proposal to increase the maximum number of supply services in or on a building to six as we are attempting to harmonize as much as possible with the NEC. I realize that there may need to be some further discussion on the specific rule.

Comment 2

I strongly reaffirm my suggestion that additional services be permitted subject to Supply Authority agreement.

The Code should not dictate this kind of thing to the supply authority.

I am not sure if this is a code issue or a Utility issue. One thing for sure, it is not safety related.

Perhaps if we made this, subject to the supply authority.

Suggest in Rule 6-104 after 'exceed four' in second line, delete the deviation verbiage and write 'except that six shall be permitted where acceptable to the supply authority.'

This recognizes the supplies authorities jurisdiction. I am waiting on a reply from Manitoba Hydro Policy group on this issue and when I receive it I will forward it along. The next policy group meeting is next Thursday Sept 9.

The other point of course is that this would not be a common need, only in multi family dwellings, very rarely in commercial.

### Comment 3

Changing from four to six is a good idea. Some jurisdictions have already been permitting six consumer services without experiencing any problems. Therefore, I agree with the proposal.

### Comment 4

We have always used the four services rule.

The six meters has never been an option in Manitoba.

My concern would be the installation of six services to one service point. The diagram shows one service mast, which is O.K., but can you imagine the same installation with six masts. The utility would not be impressed connecting that sort of installation. They don't like connecting more than two usually. The rule change would open up this sort of installation.

Please advise as the how this applies in other areas.

### Comment 5

I am opposed to an increase to six. Alberta Utilities and Inspection Authorities do not appear to have a problem observing the limit of four. I am concerned the six proposal increases the likelihood rule 6-402(2)(c) will be in violation, unless cold metering is employed. Main service conductors feeding six consumer services will likely exceed 200 amperes requiring a single main in any case. Connection of multiple services to a single overhead drop present a problem for the Utility. The reference to 2-030 should be removed and any exception to the limit of four could be at the discretion of the utility.

### Comment 6

Do not agree to simply change from 4 to 6 consumer's services because of the supply authority's limitations.

-In Quebec, we have modified this rule, in 1992, to accommodate more than 4 consumer's low voltage services terminating at anyone overhead supply service with the following factors : the total calculated load shall not exceed 600 A and the number of conductors connected to a supply service conductor shall not exceed 4 (mechanical connection limitation).

-Because of the different utility's limitations, I would suggest the following : "...shall not exceed 4, unless otherwise permitted by the supply authority" and delete the rest "unless there is a deviation....".

**Subcommittee Recommendation:** To accept the proposal as submitted.

## **6-104 Number of Consumer's Services Permitted in or on a Building**

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