



Canadian Standards Association
Mississauga, Ontario
To the Part I Committee

Subject No. 3095-68

Chair: S.W. Douglas

Date: August 24, 2004

Title: Cord-connected Hydromassage Bathtubs, Rules 68-300, 68-302 and 68-306

Submitted by: A.Z. Tsisserev of the City of Vancouver (on behalf of the Subcommittee on C22.2 No. 218.2) on October 19, 2002.

Proposal:

To amend Subsection “Hydromassage Bathtubs” as follows:

- 1) To add new Rule 68-300 to read: “**68-300 General.** Rules 68-302 to 68-308 apply to the installation of permanently and cord-connected hydromassage bathtubs”;
- 2) To renumber present Rule 68-300 as 68-302 and amend it to read as follows: “**68-302 Branch Circuits and Protection.** A hydromassage bathtub shall be: (a) supplied by a branch circuit that does not supply any other equipment; and (b) protected by a ground fault circuit interrupter of the Class A Type.”;
- 3) To renumber present Rule 68-302 as Rule 68-304;
- 4) To add new Rule 68-306 titled “**Receptacle for a Cord-connected Hydromassage Bathtub**” to read as follows: “The receptacle referred to in Rule 26-710(h) shall be marked by a warning label supplied by the hydromassage bathtub manufacturer and affixed to the receptacle by the installer, and this label shall state that no other equipment is permitted to be connected to this receptacle.”;
- 5) To renumber present Rule 68-304 as Rule 68-308.

Reasons for these requests and supporting information:

Presently Scope of C22.2 No.218.2 covers only permanently connected hydromassage bathtubs that are intended to be installed in conformance with the requirements of the CEC, Part I. The similar U.S. standard UL 1795 covers permanently and cord-connected hydromassage bathtubs.

The S/C on CSA C22.2 No. 218.2 is presently working to harmonize the UL and the CSA standards and to amend the CSA standard by extending it’s Scope to the cord-connected hydromassage bathtubs.

When the amendment to the CSA standard is adopted and a cord-connected hydromassage bathtub is certified for use in Canada, additional rules would be required in the CE Code, to reflect use of this new product under the installation rules of the Part I. (see C7 of Appendix C.) As such, a new requirement and the explanatory Appendix B Note has been proposed for Rule 26-710 in order to safely install the receptacle dedicated to a cord-connected hydromassage

bathtub. A reference to Rule 68-300 will establish a link between this dedicated receptacle and installation requirements for hydromassage bathtubs.

Accordingly, a new requirement proposed for Rule 26-720 acknowledges the fact that a separate circuit is necessary for this dedicated receptacle in order to safely accommodate a load represented by the hydromassage bathtub equipment.

Concurrently, a new rule is proposed for Subsection "Hydromassage Bathtubs" in Section 68 – to recognise the fact that permanently and cord-connected hydromassage bathtubs are permitted for installation. A new requirement is proposed to reflect a necessity for a dedicated branch circuit for the hydromassage bathtubs (regardless whether this bathtub is permanently or cord-connected).

And finally a new rule is proposed to mandate a warning label for this receptacle.

Chair's Comments:

I agree with the proposal as submitted.

Subcommittee Deliberation: Five members plus submitter responded, one agreed, three agreed with comments and one disagreed with comments

Should new Rule 68-306 not also stipulate that the receptacle be protected be a GFCI?

Agree only if the other proposal to Section 26 gets adopted, otherwise the change will not make sense.

As the receptacle for the hydromassage bathtub will likely be installed by an electrical contractor and the tub supplied and/or installed by the mechanical contractor, I suggest revising the wording in new Rule 68-106 to make the installer of the receptacle responsible for labelling it. Moreover, there is no certainty that the hydromassage manufacture will supply the label. If the label is sent with the tub, it may get lost during delivery, unpacking or installation. I suggest revising Rule 68-306 to read as follows: " The receptacle referred to in Rule 26-710(h) shall be identified at the time of installation by a permanent waterproof label place adjacent to the receptacle with the words DEDICATED RECEPTACLE FOR HYDROMASSAGE BATHTUB ONLY"

I disagree with Rule 68-306 proposal. Install of a warning label on a receptacle is temporary at best, until plate replaced or broken. There is no need to reference 26-710(h) in any case as this is installed as an exception, under specific location requirements, to supply a dedicated circuit. The use of a GFCI protected supply may be better served by a warning label on the hydro-massage supply cord.

Chair's Comments:

Rule 68-300 provide the requirement for GFCI protection fro the whirlpool tub.

At the June 2003 Part 1 meeting the following change for Rule 26-710 (H) was passed:

Rule 26-710(h) – Add a new Subrule and renumber the rest:

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- (h) Where a cord-connected hydromassage bathtub conforming to Rule 68-300 is intended to be installed, one receptacle located at not less than 300 mm from the floor

shall be provided for the use with the hydromassage bathtub, and shall be inaccessible to the hydromassage bathtub occupant.

Standard C22.2 NO. 18.2 will require the manufacture to provide the label as part of the certification. In conversation with the submitter, the intent of the label was to warn users not to connect auxiliary equipment such a heater using a cord cap. A warning label on the hydromassage supply cord would not be adequately visible to the user attempting to connect an auxiliary device.

The concern raised regarding relying solely on the tub installed to install the label can be satisfied by adding “or electrical contractor” to the proposal.

Second Round Proposal:

To amend Subsection “Hydromassage Bathtubs” as follows:

- 1) To add new Rule 68-300 to read: “**68-300 General.** Rules 68-302 to 68-308 apply to the installation of permanently and cord-connected hydromassage bathtubs”;
- 2) To renumber present Rule 68-300 as 68-302 and amend it to read as follows: “**68-302 Branch Circuits and Protection.** A hydromassage bathtub shall be: (a) supplied by a branch circuit that does not supply any other equipment; and (b) protected by a ground fault circuit interrupter of the Class A Type.”;
- 3) To renumber present Rule 68-302 as Rule 68-304;
- 4) To add new Rule 68-306 titled “**Receptacle for a Cord-connected Hydromassage Bathtub**” to read as follows: “The receptacle referred to in Rule 26-710(h) shall be marked by a warning label supplied by the hydromassage bathtub manufacturer and affixed to the receptacle by the installer or electrical contractor, and this label shall state that no other equipment is permitted to be connected to this receptacle.”;
- 5) To renumber present Rule 68-304 as Rule 68-308.

Subcommittee Deliberation Second Round: Six of the six subcommittee members responded, four agreed one with comments, and two disagreed with comments:

I agree with the comment in the first round that the hydro-massage supply cord should carry a warning label stating that the hydro-massage should be plugged into a GFI protected receptacle. I still believe that the responsibility for supplying and installing the warning label on the dedicated receptacle should rest with the installer of the receptacle. The installer should be aware of the purpose of the receptacle and take responsibility for warning all potential users that it is to be used only for the hydro-massage.

My first concern is the inclusion of requirements applicable to a hydro-message bathtub in Section 26 when it seems Section 68 (Scope) is identified as a supplementary and amendatory section. Section 26 is a general section at best. By including requirements in 26-710(h) and 26-720(f) we have limited the application to residential occupancies? Hydro-message bathtubs are certainly installed in many other locations. I propose removal of Section 26 amendments and relocating the requirements to Section 68. I suggest proposed Rule 68-306 might read as follows:

- 1) A receptacle located at not less than 300mm from the floor shall be provided, and the receptacle shall be inaccessible to the hydro-message bathtub occupant.
- 2) A warning label supplied by the hydro-message bathtub manufacturer shall be affixed to the receptacle by the installer or the electrical contractor, and this label shall state no other equipment is permitted to be connected to the receptacle.

- 3) Notwithstanding Subrule (2) a warning label is not required where a single receptacle is used.

I agree with the balance of the second round proposal.

Disagree with 68-306, this is a Part II issue. Recommend this proposal go to the Part II committee.

Chair's Comments:

The first comment refers to the responsibility of installing the warning label and education of the industry. Upon completion of this subject we can pass this information on to the Handbook committee for their consideration.

The first disagreement raised a concern regarding the placement of the paragraph in Section 26 limiting the requirement to residential occupancies, and installation using single outlet. The third round proposal addresses both these issues.

As far as the second disagreement referring to the Part II committee, the subcommittee member was not aware the original proposal was submitted on behalf of the Part II committee.

Subcommittee Recommendation Third Round:

To amend Subsection "Hydromassage Bathtubs" as follows:

- 1) To add new Rule 68-300 to read: "**68-300 General. Rules 68-302 to 68-308 apply to the installation of permanently and cord-connected hydromassage bathtubs**";
- 2) To renumber present Rule 68-300 as 68-302 and amend it to read as follows: "**68-302 Branch Circuits and Protection. A hydromassage bathtub shall be: (a) supplied by a branch circuit that does not supply any other equipment; and (b) protected by a ground fault circuit interrupter of the Class A Type.**";
- 3) To renumber present Rule 68-302 as Rule 68-304;
- 4) To add new Rule 68-306 titled "**Receptacle for a Cord-connected Hydromassage Bathtub**" to read as follows: "
 - 1) Where a cord-connected hydromassage bathtub conforming to Rule 68-300 is intended to be installed, one receptacle located at not less than 300 mm from the floor shall be provided for the use with the hydromassage bathtub, and shall be inaccessible to the hydromassage bathtub occupant.
 - 2) The receptacle referred to in Subrule (1) shall be marked by a warning label supplied by the hydromassage bathtub manufacturer and affixed to the receptacle by the installer or electrical contractor, and this label shall state that no other equipment is permitted to be connected to this receptacle.
 - 3) Notwithstanding Subrule (2) a warning label is not required where a single receptacle is used.
- 5) To renumber present Rule 68-304 as Rule 68-308.

Upon successful completion of the Round three recommendation this subcommittee would propose an amendment to Section 26 to remove new Paragraph 26-710 (h)

Subcommittee Deliberation Third Round: Six of the six subcommittee members responded, all agreed, one with comments:

- 1) Agree with comments. In order for this to go ahead a proposal to part 2 shall be submitted in order that the warning about plugging into GFCI protected receptacle only

Chair's Comments:

The recommendation for a warning regarding GFCI protected receptacles has been brought to the attention of the project manager for Standard C22.2 No.218.2 and will be addressed upon final resolution of this subject.

Subcommittee Recommendation:

To amend Subsection "Hydromassage Bathtubs" as follows:

- 1) To add new Rule 68-300 to read: "**68-300 General.** Rules 68-302 to 68-308 apply to the installation of permanently and cord-connected hydromassage bathtubs";
- 2) To renumber present Rule 68-300 as 68-302 and amend it to read as follows: "**68-302 Branch Circuits and Protection.** A hydromassage bathtub shall be: (a) supplied by a branch circuit that does not supply any other equipment; and (b) protected by a ground fault circuit interrupter of the Class A Type.";
- 3) To renumber present Rule 68-302 as Rule 68-304;
- 4) To add new Rule 68-306 titled "**Receptacle for a Cord-connected Hydromassage Bathtub**" to read as follows: "
 - 1) Where a cord-connected hydromassage bathtub conforming to Rule 68-300 is intended to be installed, one receptacle located at not less than 300 mm from the floor shall be provided for the use with the hydromassage bathtub, and shall be inaccessible to the hydromassage bathtub occupant.
 - 2) The receptacle referred to in Subrule (1) shall be marked by a warning label supplied by the hydromassage bathtub manufacturer and affixed to the receptacle by the installer or electrical contractor, and this label shall state that no other equipment is permitted to be connected to this receptacle.";
 - 2) Notwithstanding Subrule (2) a warning label is not required where a single receptacle is used.
- 5) To renumber present Rule 68-304 as Rule 68-308.

Upon successful completion of the subject this subcommittee would propose an amendment to Section 26 to remove new Paragraph 26-710 (h)

Chair's Comments:

At the June 2004 Part 1 meeting in June the subcommittee recommendation was defeated. Two main issues were raised:

- 1) The requirement for a dedicated circuit was considered a convenience issue not a safety issue.
- 2) The requirement for the warning sign could be difficult to enforce.

To deal with the first issue the following proposal will remove the need for a dedicated circuit. The issue regarding the warning sign was a one of the main conditions from the C22.2 No. 218.2

subcommittee to harmonize the UL and the CSA standards by amending the CSA standard by extending it's Scope to the cord-connected hydromassage bathtubs.

Forth Round Proposal:

To amend Subsection "Hydromassage Bathtubs" as follows:

- 1) To add new Rule 68-300 to read: "**68-300 General.** Rules 68-302 to 68-308 apply to the installation of permanently and cord-connected hydromassage bathtubs";
- 2) To renumber present Rule 68-300 as 68-302
- 3) To renumber present Rule 68-302 as Rule 68-304
- 4) To add new Rule 68-306 titled "**Receptacle for a Cord-connected Hydromassage Bathtub**" to read as follows: "
 - 1) Where a cord-connected hydromassage bathtub conforming to Rule 68-300 is intended to be installed:
 - a. one receptacle located at not less than 300 mm from the floor shall be provided for the use with the hydromassage bathtub; and
 - b. the receptacle shall be inaccessible to the hydromassage bathtub occupant.
 - 2) The receptacle referred to in Subrule (1) shall be marked by a warning label supplied by the hydromassage bathtub manufacturer and affixed to the receptacle by the installer or electrical contractor, and this label shall state that no other equipment is permitted to be connected to this receptacle.";
 - 3) Notwithstanding Subrule (2) a warning label is not required where a single receptacle is used.
- 5) To renumber present Rule 68-304 as Rule 68-308.

Upon successful completion of the subject this subcommittee would propose an amendment to Section 26 to remove new Paragraph 26-710 (h)

Subcommittee Deliberation Fourth Round: Six of the seven subcommittee members responded, five agreed, one with comments, and one disagreed:

I reviewed standard 1431 which includes plug in spas as well as the NEC regulations and cannot figure where the NEC/UL requirements are for the marking to be put on the receptacle, as well as the single receptacle need. The proposal makes a statement that the intent is to harmonize.

I am in complete disagreement with the removal of the dedicated circuit and the reasoning. If this is a convenience issue, Section 26 should remove dedicated circuits for micro-waves, refrigerators, built-in vacuums, dishwashers, washing machines etc. It is unconscionable to suggest a hydro-massage tub, in most cases using a 3/4 horsepower pump is not a safety issue when installed on a non-dedicated circuit. It is also a major problem to increase the supply to one of these units when located in a finished area remote from the supply panel. This is a constant concern to electricians and inspectors who find the installed unit exceeds the circuit loading provided.

Chair's Comments:

The first comment is not relevant as the topic of this subject is regarding hydromassage bathtubs not spas or hot tubs.

Regarding the disagreement, the main reason this subject did not pass the last Part 1 meeting was because of the dedicated circuit issue. The subcommittee member has agreed to submit a new proposal to deal with the dedicated circuit issue.

Subcommittee Recommendation:

To amend Subsection "Hydromassage Bathtubs" as follows:

- 1) To add new Rule 68-300 to read: "**68-300 General. Rules 68-302 to 68-308 apply to the installation of permanently and cord-connected hydromassage bathtubs**";
- 2) To renumber present Rule 68-300 as 68-302
- 3) To renumber present Rule 68-302 as Rule 68-304
- 4) To add new Rule 68-306 titled "**Receptacle for a Cord-connected Hydromassage Bathtub**" to read as follows:
 - 2) Where a cord-connected hydromassage bathtub conforming to Rule 68-300 is intended to be installed:
 - a. one receptacle located at not less than 300 mm from the floor shall be provided for the use with the hydromassage bathtub; and
 - b. the receptacle shall be inaccessible to the hydromassage bathtub occupant.
 - 2) The receptacle referred to in Subrule (1) shall be marked by a warning label supplied by the hydromassage bathtub manufacturer and affixed to the receptacle by the installer or electrical contractor, and this label shall state that no other equipment is permitted to be connected to this receptacle.";
 - 4) Notwithstanding Subrule (2) a warning label is not required where a single receptacle is used.
- 5) To renumber present Rule 68-304 as Rule 68-308.

Upon successful completion of the subject this subcommittee would propose an amendment to Section 26 to remove new Paragraph 26-710 (h)