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Municipal Affairs
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**Record of Meeting
Building Code Technical Committee, Part 8, Division B**

9:00 am to 4:00 pm May 2 & 3, 2011 at:
Best Western Primrose Hotel, Toronto

Chair: Ray Hachigian

Members:

Anthony Acchione
Roger Barrette
Zafar Bhatti (regrets)
Gene DiMeo
Bechara Daher
Rick Esselment
Ray Hachigian
Stephen Hetherington

Brian Howden
Ranee Mahalingam (regrets)
John Rouse
Heather Rutherford
Bob Thomson
Robert Tremblay (regrets)
Dave Turner
Tony Van Rossum

Secretary: Dan Mitta

Ministry Staff: Alek Antoniuk, Joe Rogers, Ahmed Sharaf, Nancy Smith, Ralph DiGaetano, Elisheva Bouskila, Devon Wong, Denise Evans

The following is a record of committee recommendations and is not indicative of the final technical change.

Record of Meeting

The meeting on May 2, 2011 commenced at 9:10 am and was adjourned at 3:50 pm.
The meeting on May 3, 2011 commenced at 9:00 am and was adjourned at 3:35 pm.

1.0 Ministry Opening Remarks

Mr. Antoniuk welcomed the Committee on behalf of the Ministry.

2.0 Opening Remarks from the Chair

Mr. Hachigian welcomed the Committee and reviewed the terms of reference.

3.0 Introductions

4.0 Technical Items

The following recommendations were made by the technical committee.

S – General

Ahmed Sharaf of MMAH provided a technical review of Type A and Type B dispersal beds.

S-A-01-04-01 Div. A 1.4.1.2.

Accepted with the following modification:

Recommend that Ministry staff review the proposed definition of Type A dispersal bed and harmonize it with the currently defined term “leaching bed”.

S-A-01-04-02 Div. A 1.4.1.2.

Accepted with the following modification:

Recommend that Ministry staff review the proposed definition of Type B dispersal bed and harmonize it with the currently defined term “leaching bed”.

-Replace “highly treated” with “Class IV” similar to change S-A-01-04-01.

S-B-08-01-01 Div. B 8.1.3.1.

Accepted as proposed.

S-B-08-02-01 Div. B 8.2.1.2.(2)

Accepted with the following modification.

Remove “or” after Clause (b) since Sentence (2) already states “one or more of the following methods”.

Notes:

- Preferable to have 2 required methods (include percolation tests) however percolation tests not applicable in some Ontario locations (ie. Canadian Shield).
- The change as proposed allows options for designer and municipality to decide which tests are applicable to their particular areas.

S-B-08-02-02 Div. B 8.2.3.1. & 8.2.3.2.

Accepted with the following modification:

Revise Sentence (1) to include “distribution box” in lead in to Sentence 8.2.3.2.(1)

Notes:

- Decision to install tracer wire should be left to home owner and not be mandatory.
- As-built drawings could satisfy the provisions of the proposed change and this is not feasible. Who keeps paper work? Drawings are inaccurate and eventually get lost – for example - when enforcement transferred from health unit to municipality. Plans are not kept permanently – some jurisdictions have 7-year retention cycle.

S-B-08-06-01 Div. B 8.6.2.1.

Accepted with the following modification:

Revise Clause (b) to specify minimum area from of 550 cm² instead of proposed 600 cm² for consistency with CSA B65 standard (currently underdevelopment).

S-B-08-06-02 Div. B 8.6.2.2.(1)

Accepted as proposed.

Notes:

- The proposed change is consistent with BNQ and CSA B65
- Should the effluent quality coming out of septic tank be regulated before it goes to the treatment unit?
- If BNQ standard is complied with, the effluent quality of the septic tank should not be a concern.

S-B-08-06-03 Div. B 8.6.2.2.(2)

Accepted with the following modification:

Remove Clause 8.6.2.2.(2)(b) as there is not enough justification to include disinfection provisions.

Notes:

- The Ministry of Environment no longer refers to Fecal Coliforms (since 1996), instead it uses e-coli. Strike out “Fecal Coliforms” in Table 8.6.2.2.B in proposed change S-B-08-06-06)
- The BNQ standard refers to both to “Fecal Coliforms” and “E..Coli”.

S-B-08-06-04 Div. B 8.6.2.2.(5)

Accepted with the following modifications:

Suggested wording applicable to the BNQ standard prior to 2017 (revise accordingly for 2017):

(b) Except as provided in Clause (c), it has been certified under any option of Clause 8.2.2. of CAN/BNQ 3680-600 “Onsite Residential Wastewater Treatment Technologies”; or
(c) where limited to (single or multiple) dwelling unit applications, it has been certified under any option C of 8.2.2. of CAN/BNQ 3680-600 “Onsite Residential Wastewater Treatment Technologies”

Notes:

- Question: Is there a time limitation for Clause (5)(a) – systems described in SB-5.
Answer: There is a sunset clause - After Dec 31, 2016, SB-5 will no longer be in existence and all systems will have to comply with mandatory BNQ.
- Ministry seeking direction testing 1-year protocol based on temperature options (a) < 10°C, (b) 10°C or (c) 17°C ± 1 in 8.2.2. of BNQ standard.
- Using option (c) of BNQ standard may require heating of effluent in certain buildings (schools, institutions, etc) to ensure it meets testing criteria used and therefore it is appropriate only to residential.

S-B-08-06-05 Div. B 8.6.2.2.(6)

Accepted as proposed

Notes:

- Clarification required: Will the provision apply to “at risk areas” defined under the “Clean Water Act?” The application under the Code should be harmonious with MOEE maps establishing these specific levels for locations across the province.
- Consider future Code change to standardize effluent from septic tank.
- Should phosphorous and nitrogen reduction be applicable to all locations or should it be determined on as-required basis?
- Question: It is not clear when P-I and P-II as well as N-I and N-II apply as they are quite different. Answer: Areas would be specified in Code through MOE established maps and would specify specific levels of treatment to be met.

S-B-08-06-06 Div. B Table 8.6.2.2.A.

Accepted as proposed.

S-B-08-07-01 Div. B 8.7.3.1.

Accepted with the following modification:

Ministry to look at other calculation formulas to determine the length of the distribution pipe depending on the quality of the effluent. (Length reduction for levels III and IV).

Notes:

- Suggest for Level III: $L = QT/400$; and for Level IV: $QT/450$. Ministry to ensure that it does not exceed 450.
- BC and Alberta use hydraulic loading rate tables.

S-B-08-07-02 Div. B 8.7.3.3.

Accepted as proposed.

S-B-08-07-03 Div. B 8.7.3.3.

Reject

Notes:

- No justification provided to support reduction from 19 mm to 9.5 mm stone.
- MMAH to investigate availability of stone.

The note to Table 9.7.3.3.A is confusing and could mean that other sized stone needs to be washed.

S-B-08-07-04 Div. B 8.7.3.3.(1)(d)

Reject:

Notes:

- No data provided to support the change.
- The change implies that the pipe must be 1" in diameter (the system is pressure dosed).
- Pressure dosing should be a defined term to clarify the proposal.
- Application should be clear (Would apply to filter beds and this may not be necessary).
- Fewer failures with traditional gravity systems as opposed to reliance on mechanical-assisted systems.

S-B-08-07-05 Div. B 8.7.4.2.(1)

Reject:

Notes:

- The proposed change is inaccurate as shallow buried trenches may be constructed on fill.

S-B-08-07-06 Div. B 8.7.5.1.

Accepted as proposed.

S-B-08-07-07 Div. B 8.7.5.3.

Reject

Notes:

- Not enough data provided on gradation for TAC to make a recommendation.
- Ministry to review requirements for filters beds for future code changes.
- Are fine grained sands the best way to ensure fecal removal? Concerned that fine sand may promote clogging.
- Recommend Ministry undertakes testing provide results for TAC to make informed decision.
- There are significant implications for installers and filter sand suppliers.

S-B-08-07-08 Div. B 8.7.5.3.(8)

No consensus.

Notes:

- Does this mean 1” pipe? Similar to code change S-B-08-07-04 - Div. B 8.7.3.3.(1)(d).
- Existing requirements have proven effective. There is no justification to make changes without testing and results. Proof required that time dosing or pressure distribution improves treatment.
- Eliminating gravity systems will limit design options.
- Homeowners are generally not familiar with complicated systems.

S-B-08-07-09 Div. B 8.7.5.3.(9) & (10)

Reject

Notes:

- Failure problems occur when systems are improperly installed or used.
- Recommend that the Code be more specific on how filter beds are constructed, consider an Appendix note.

S-B-08-07-10 Div. B 8.7.6.2.

Accepted as proposed

Note:

- Use “CAN/BNQ” designation in Code consistently to denote that it is a national standard.

S-B-08-07-11 Div. B 8.7.7.

Accepted with the following modifications/comments:

8.7.7.1.(1) Ministry to define “person competent”. Is this someone who is qualified under the Code, a designer, manufacturer or installer? Is one person competent for all systems? Passing Ministry exam doesn’t make someone competent. Other Ministries use the term competent person as other provincial regulations (example Ministry of Labour). Either Ministry includes similar definition or removes the term.

8.7.7.2.(1) Note: TAC recommended a revision to 8.6.2.2.(2) (see change 08-06-04)

- Should be consistent with requirements for shallow buried trench.
- Vertical separation should be credited since it is better quality effluent.

8.7.7.2.(2) – accepted as proposed

8.7.7.2.(3) – accepted as proposed

8.7.7.2.(4) – accepted as proposed

- D-1 level of disinfection should be credited for effluent quality and should require lower sand depth.

8.7.7.2.(5)

- Recommend Ministry confirm P time of 15 min./cm and $A=QT/400$ as the right numbers given that it has been used in BMEC authorizations. These numbers do not correspond with Table 8.7.4.1A. Ministry to research and revise numbers as required. Credit should be given to better quality effluent.

8.7.7.2.(6)

- Clause (a) doesn’t align with Sentence (5) which prescribes that the sand layer extended in “any direction”. Revise the Clause by deleting “rectangular in shape” and replacing with “having the long dimension parallel to site the contours” as there are some sites prevent rectangular installations.
- In Clause (d) 600 mm was proposed in 2008 - no justification to explain increase from 600 mm to 700 mm. Ministry should also review percolation time provided.

8.7.7.2. (7) – accepted as proposed

8.7.7.2. (8)

- Delete Appendix note which requires a pressurized system as one method of conformance.
- Provide an exception for “where an open bottom treatment unit is centered on top of the stone layer”

8.7.7.2. (9)

- Recommended change - start the Sentence “As applicable, the distribution pipes or the edge of an open bottom treatment unit centered on top of the stone layer shall...”

Notes:

- Prescriptive code provisions stifle innovation (tertiary treatment systems) and alternative design but on the other hand provide design parameters that could be overlooked.
- This will eliminate systems approved by BMEC which manufacturers developed and tested to satisfy approvals body. Why start over and discard previous accepted systems.
- Objective-based Code will permit other technologies (ie. existing BMEC authorizations could still be acceptable)
- Ministry should allow for open bottom even distribution systems which are highly engineered and effective.
- Old area beds on small lots are a big problem. Many buildings that started out as cottages on small lots were converted to homes. There were many failures with exiting septic systems which were eventually corrected. This change will limit remedial options and new technologies which could solve these problems. Must take into account size of existing small lots and reduced setbacks as well as move to intensify new lots.
- Re: page 30 on consultation document – Ministry to conduct field testing of dispersal beds – evaluation and results to determine design of dispersal beds.
- The code does not require disinfection for filter beds why is it requiring it for tertiary treatment systems? Disinfection if required should come from “Source Water protection Act”
- Concern with measurement to stone rather than to pipe or edge of treatment unit as is required in other provisions in Part 8.

S-B-08-07-12 Div. B 8.7.8.

Accepted with the following modifications/comments:

Add new Sentence 8.7.8.1.(1) to require competent person (recommended to define term) for consistency with proposal and TAC recommendations for Type A dispersal beds.

8.7.8.1.(1) accepted as proposed

8.7.8.1.(2) accepted as proposed

8.7.8.2.(1)

- revise as per comments on Type A dispersal bed

8.7.8.2.(2)

- revise as per comments on Type A dispersal bed

8.7.8.2.(3)

- Revise to remove BC reference and include Tyler tables as amended by BC.

8.7.8.2.(4)

- Revise to remove BC reference and include Tyler tables as amended by BC.

8.7.8.2.(5)

- Reduce vertical separation to 600 mm as per revision to Type A dispersal bed.

8.7.8.2.(6) accepted as proposed

8.7.8.2.(7)

- clarification to require it comply with pressurised system requirements of Sentences 8.7.3.3.(1) to (4)

8.7.8.2.(8) accepted as proposed

8.7.8.2.(9) accepted as proposed

8.7.8.2.(10) accepted with the following modifications:

- change “over” to “during”
- add “time dosed” at end of sentence.

8.7.8.2.(11) accepted with the following comment for consideration

- The Code should have a clarification that each bed is designed and sized according to the flow it receives.

Notes:

- These systems are not being used in Ontario.
- If introduced in Code, people would first have to understand it. Industry is not moving in this direction.
- Hard to determine benefit other than to increase design options.
- Would requiring training for building industry including enforcement officials.
- Defer to Jan 1, 2014 adoption to allow for familiarity and training.
- Place changes as alternative in Appendix A.
- Bring in Tyler Tables.
- Committee already recommended code change S-B-08-02-01 which introduced Soil Texture Classification as per USDA standard Soil Survey Manual which uses Tyler Tables to determine loading rates.

S-B-08-07-13 Div. B 8.7.8.

Accepted as per comments applicable to change S-B-08-07-12

- MMAH to consider combining provisions applicable to both Type B options in one Article [introduce “or” in Sentence (3)].

S-B-08-09-01 Div. B 8.9.2.4.

Accepted with the following modifications:

- Revise Sentence (1) to read “Every person maintaining a treatment unit...”
- Revise (2)(b) to read every 24 month period and delete the rest of the sentence.

Notes:

- Sampling can determine problem with system and isolate problem – either malfunction of system or misuse or overload of system by homeowner.
- Sampling is expensive.
- Municipalities don’t necessarily want to see these samples on frequent basis.
- Reject sampling requirements as they only apply to systems requiring service contracts – onerous and targets only one type of sewage system.
- Sampling has limited usefulness as specimen can be sampled at any time of day or night with skewed information.
- Wait until BNQ standard is finalized and then adopt into Code.
- Fraudulent samples can be taken by homeowner.

S-B-08-09-02 Div. B 8.9.2.4.(4)

Accepted with the following modifications:

- Revise Sentence (1) to read “It is the responsibility of the person authorized by the manufacturer to ...” [see current Sentence 8.9.2.3.(3)]

Notes:

- Ultimately the responsibility of homeowner to have maintenance contact.
- Should permit “certified maintenance providers” rather than manufacturer’s authorized provider.
- Revise Clause (c) by adding “promptly submit upon request”

S-B-08-09-03 Div. B 8.9.3.3.

Accepted as proposed.

S-B-11-03-01 Div. B 11.3.1.1.(2)

Accepted as proposed.