New Code Changes – 2014

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Most significant changes since 1997
Main changes are related to alternative leaching bed designs
- Type A (area beds) – intended to replace area bed approvals in BMEC
- Type B – new type of pressurized leaching bed
Many other changes – most minor but some with significant impact on ongoing costs

Changes for 2014

Grease Interceptors

Site Evaluation:
- the percolation time for soils can be assessed by following the ‘Soil Texture Classification’ as described in Chapter 3 of the USDA, “Soil Survey Manual”

Effluent Filters
- NSF/ANSI 46
- Filter Particles 1.6 mm
- Minimum Area 550 cm²
Minor changes

- Treatment levels
  - Drop BOD from consideration – only CBOD and TSS
  - Rename treatment levels to match those in the BNQ
  - What was Tertiary is now Level IV
- Treatment Units
  - Treatment units can now be certified to CAN/BNQ 3680-600
  - SB-5 will be revoked on January 1, 2017
  - BNQ is a better standard than the old NSF standard as it now includes cold weather conditions

Minor Changes

- Other Treatment Units:
  - Amended to re-classify the effluent from treatment units into a three-level system:
    - Level II – 30 mg/L suspended solids and 25 mg/L CBOD
    - Level III – 15 mg/L suspended solids and 15 mg/L CBOD
    - Level IV – 10 mg/L suspended solids and 10 mg/L CBOD

Minor Changes

- Detection means for header and distribution lines now required
  - Wire, magnetic means or other means of locating
  - Cost not large - about a few hundred dollars in terms of time and materials for each system
  - For tracer wire, procedure similar to gas lines
    - Wire in each trench
    - Grounded
    - Connector end exposed and accessible

Minor Change

Limitation on Design/Installation

The design and installation of a shallow buried trench, Type A dispersal bed or Type B dispersal bed shall be carried out by a person competent in this field of work (previously Sentence 8.7.6.1.(1) – OBC 2006).

Minor Change

SBT’s

- 8.7.4.2. Construction Requirements
  - (1) Except for a shallow buried trench, a leaching bed comprised of absorption trenches may be constructed in leaching bed fill, if unsaturated soil or leaching bed fill complying with …

More significant changes

- Sampling
  - All treatment units sampled annually (not once per 4 years as previously with area beds)
  - Same for all tertiary (Level IV) treatment applications
  - Meet requirements with a grab sample if within 2x 30-day average targets
  - Must submit results to CBO
  - Must fix the problem and resample within 6 months if out of compliance
Major Changes

- Division B 8.9.2.4.(1)
- Sampling of Treatment Units:
  - requirements amended to include Type A and B dispersal beds

Major Change

Type A Beds

- These are intended to replace the BMEC authorizations for “Area Beds” that most technologies have obtained over the past 10 years
- System is like a filter bed only with a thinner layer of sand.
- Follow an approach similar to the BMEC authorizations with some important differences
- Table on next page summarizes the differences

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Filter Bed</th>
<th>Old Area Bed</th>
<th>New Type A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre treatment</td>
<td>ST or TU</td>
<td>Tertiary</td>
<td>Level IV</td>
</tr>
<tr>
<td>Gravel Size Area (m²)</td>
<td>Q/50 or Q/75 (ST)</td>
<td>Q/75 or Q/90</td>
<td>Q/75 or Q/50</td>
</tr>
<tr>
<td>Sand Area</td>
<td>Q₁₀/₅₀ T₉₅⁺ 15 + 15 m req</td>
<td>Q₁₀/₅₀ T₉₅⁺ 15 + 15 m req</td>
<td>Q₁₀/₅₀ T₉₅⁺ 15 + 15 m req</td>
</tr>
<tr>
<td>Sand Thickness</td>
<td>750 mm</td>
<td>250 mm</td>
<td>300 mm</td>
</tr>
<tr>
<td>Sand Specification</td>
<td>0.25&lt;dₜ₅&lt;2.5 mm</td>
<td>T=6-10</td>
<td>T=6-10</td>
</tr>
<tr>
<td>Sep. to G/W, rock, poor soil</td>
<td>900 mm</td>
<td>450 mm T=6-95</td>
<td>300 mm otherwise</td>
</tr>
<tr>
<td>Separation Distances</td>
<td>From pipe (TU’s if no pipe)</td>
<td>From pipe</td>
<td>From Gravel</td>
</tr>
<tr>
<td>Sampling</td>
<td>Not Required</td>
<td>Every 4 yrs provide to operator, CBO on request</td>
<td>Every year, must provide to CBO on request</td>
</tr>
<tr>
<td>Compliance</td>
<td>N/A</td>
<td>??</td>
<td>2x 30-day average req (20 mg/L)</td>
</tr>
</tbody>
</table>

Major Changes

Two (2) New Beds

- Used to have in the Code:
  - Conventional trenches
  - Filter Bed Systems
  - Shallow buried trench systems
- In the BMEC also had:
  - Area beds
  - Chamber systems
- Now you can add:
  - Type A Dispersal Beds
  - Type B Dispersal Beds

Major Changes

Type “A” BED

Type “A” Bed

Minimal Impact on Setback Req.
Type “A” Bed
Larger Impact on Setback Req.

An important question is what happens to the old BMEC area bed authorizations?

It is clear the new provisions are meant to replace these.

BUT!

The authorizations are valid until revoked.

Some authorizations have a sunset clause (5 years).

All have a clause saying they can be revoked if OBC changes.

BMEC will need to decide on revocation.

BMEC Authorizations

Major Change
Type “B” Beds

- Not really a bed – more like a line across a slope.
- Stone bed on native or fill soils (1-50 min/cm).
- Stone 250 mm below pipe, 50 mm above.
- Pressurized pipe in stone.
- Level IV treatment system.
- Pump chamber, timer.
- Vertical separation of 600 mm.
- Slopes < 1.7.
- Can use alternative design criteria – Tyler Loading Tables, linear loading rates.

Type “B” Bed

Changes

- Take effect January 1, 2014.
- Get ready and good luck!