Amendment to OPSS 335, November 2015

Compaction Measurement Using Nuclear Moisture and Density Gauge

335.02 REFERENCES

Section 335.02 of OPSS 335 is amended by the addition of the following under Ministry of Transportation Publications:

Compaction Measurement of Cold In-Place Recycled Pavements Using Nuclear Moisture and Density Gauges

335.06 EQUIPMENT

335.06.03 Compaction Equipment

Subsection 335.06.03 of OPSS 335 is amended by the addition of the following sentence:

Compaction equipment for control strips shall have a minimum static weight of 11,000 kg.

335.07 CONSTRUCTION

335.07.06 Compaction

Subsection 335.07.06 of OPSS 335 is deleted in its entirety and replaced with the following:

335.07.06.01 Compaction Testing Target Density

Compaction acceptance shall be according to the Acceptance Criteria for Compaction clause and shall be based on the target density. A control strip for the determination of the target density shall be constructed at the start of CIREAM production. The control strip shall be constructed according to Compaction Measurement of Cold In-Place Recycled Pavements Using Nuclear Moisture and Density Gauges. A minimum notice of 2 Business Days shall be given to the Contract Administrator prior to the construction of the control strip.

Compaction testing of the control strip, the establishment of the target density, and compaction acceptance testing according to the Compaction Testing clause shall be completed by the Owner.

335.07.06.02 Target Density

A new control strip shall be constructed and a new target density established for every 100,000 m² of CIREAM production and whenever any one of the following situations arises:

a) A different mix design is applied to the pavement section.

b) The existing pavement material significantly changes in surface roughness, gradation, composition, or layer thickness as determined by the Contract Administrator.
c) A different nuclear moisture and density gauge is to be used for the sublot testing.

The new target density shall apply to the calculations according to the Acceptance Criteria subsection for all sublots constructed after the establishment of a new target density.

335.08 QUALITY ASSURANCE

335.08.02 Sampling

335.08.02.02 Slabs

Clause 335.08.02.02.02 of OPSS 335 is deleted in its entirety.

335.08.03 Acceptance Criteria

335.08.03.03 Compaction

Clause 335.08.03.03 of OPSS 335 is deleted in its entirety and replaced with the following:

335.08.03.03.01 Compaction Testing

Quality assurance for the compaction of CIREAM shall consist of taking five random field wet density and moisture content measurements from each sublot of compacted CIREAM and using them to calculate the Quality Index (Qt) according to Compaction Measurement of Cold In-Place Recycling Pavements Using Nuclear Moisture and Density Gauges.

335.08.03.03.02 Acceptance Criteria for Compaction

When Qt for a sublot is equal to or greater than the value as specified in Table 1, the sublot shall be accepted; otherwise, the sublot shall be rejected for compaction.

335.08.03.03.03 Rejected Sublots

If a sublot is rejected for compaction, the sublot shall be recompacted, with adjustment to the moisture content if required, until satisfactory compaction is achieved. The recompacted sublot shall be retested and the compaction re-evaluated according to the Acceptance Criteria subsection.

### Table 1 – Quality Index for Compaction

<table>
<thead>
<tr>
<th>Year of Tender Opening</th>
<th>Accepted Quality Index (Qt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1.23</td>
</tr>
<tr>
<td>2017</td>
<td>1.35</td>
</tr>
<tr>
<td>2018</td>
<td>1.49</td>
</tr>
</tbody>
</table>