1.0 PURPOSE

This specification outlines when a Building Permit is required pursuant to the Ontario Building Code Act and its Regulations. The Ontario Building Code Act prescribes that each municipality is responsible for enforcing the Act; Vale must therefore comply with all pertinent municipal by-laws and administrative procedures under the jurisdiction of the Building Services Department of the City of Greater Sudbury.

This document also describes the basis on which building permit fees should be calculated.

This specification does not include all the details for the building development charges introduced in 2009 under the city By-Law 2009-200F. It should be noted that in addition to the building permit fees, the City of Greater Sudbury charges an additional fee for land development. This development charge apply to new buildings and the expansion of existing building where such will increase demand on surrounding public infrastructure. The development charges do not apply to buildings renovation or any other construction within the existing building.

The definition of a "building" is interpreted in Clause 1 of the Ontario Building Code Act. Clause 2 of the Building Code Act provides an exclusion stating that this Act does not apply to structures used directly in the extraction of ore from a mine. (these structures are all underground mine structures, headframes and collar houses.) However, buildings attached or ancillary to those operations would not be exempt.

Articles 4, 5 and 6 of this document collectively provide a further clarification of this interpretation with respect to installations at Vale Limited. The clarification is given in terms of "buildings" either requiring or not requiring a Building Permit, and of structures deemed not to be "buildings" by interpretation of the Act.

2.0 "BUILDINGS" REQUIRING PERMITS

Building Permits are required for buildings in excess of 107 square feet (10 square meters).

In addition to those "buildings" as interpreted in Clause 1 of the Building Code Act, Building Permits are required for the following buildings:

At mining complexes:
- offices
- shops
- warehouses
- Hoist Houses
- all other surface structures except as listed in section "Buildings Not Requiring Permits" of this document

At open pit sites:
- shops
• warehouses
• office trailers permanently attached to ground
• construction trailers with full time human occupancy

At process plants:
• crushing plants
• mills
• smelters
• matte processing plants
• refineries

At related ancillary buildings like:
• powerhouses
• shops
• warehouses
• offices
• etc.

At tailings and slag disposal areas:
• pumphouses
• control buildings

At hydro and electrical installations:
• powerhouses and turbine buildings
• switch and relay houses
• equipment foundations in substations
• control buildings
• trestles
• flues
• silos
• storage bins and storage tanks

Building Permits are required for the following buildings:

• Change of use of an existing building as described in the Ontario Building Code.
• Any change, modifications or alterations to buildings, which affect the structural load bearing elements of the buildings.
• Supports and foundations for process equipment, process piping, proprietary storage tanks such as clarifiers, thickeners, flotation cells, electro cells, etc. Attachments of process equipment to the building superstructures.
• Ramps, Catwalks and platforms with human occupancy.
• Pedestrian Bridges.
• Non proprietary storage tanks.
• Office trailers.
• Crane Runways (Note: Crane bridge including trolleys, hoists, and end trucks are considered equipment and are excluded from building permits).
• Control Buildings for hydro dams (dams are excluded).
• Cooling tower foundations including water basin (cooling tower is excluded).
• Fabric Covered Buildings (tent structures) including frame and foundation, including on mine sites.
• Material alterations to an existing building: “a material alteration is an alteration that matters in terms of potentially creating the hazards the Ontario Building Code (OBC) was designed to protect people and buildings from being exposed to such hazards”.
• Construction Trailers located on a construction site for the duration of the construction project:
  o a building permit is required if at least one of the following requirement is present:
    ▪ Permanent human occupancy where personnel set up offices and work stations to perform construction management, project controls or other construction activities.
    ▪ Trailers that require to be tied down and anchored to the ground.
  o Construction trailers that are only used for the workers to have their lunches and breaks do not require a building permit.
  o Construction trailers that are used for storage of construction materials do not require a building permit.

Contractor Trailers: Trailers are erected by contractors on Vale property to provide maintenance and construction work on regulars basis. These trailers are different than the construction trailers as are not erected for one specific construction project. All contractors trailers located on Vale property require a building permit.

3.0 "BUILDINGS" NOT REQUIRING PERMITS

According to the Ontario Building Code Act, Clause 1, “This act does not apply to structures used directly in the extraction of ore from a mine," Building Permits are not required for the following installations of Vale Limited:
• All underground workings, installations and facilities below collar level.
• Surface Mining structures: Headframes, and Collarhouses.
• Fresh-air-raises for mine ventilation. However fan foundations and other surface structures associated with the fresh air should be included in the building permit.
• All structures and facilities within open pits and sand pits from the pit mouth (entrance to the pit) to pit bottom, except as listed in section “Buildings Requiring Permits” of this document.
• All tailings, tailings dams, and slag disposal areas, except as listed in section “Buildings Requiring Permits” of this document.
• Tanks that are of a proprietary design (such as thickeners, clarifiers, floatation cells, electro cells, etc.), will require a Letter of General Conformance for their structural integrity. The letter shall include the design criteria used as well as the loading conditions imposed on the building support structure. This Letter of Conformance shall bear the seal of a P. Eng. Licensed in the Province of Ontario and will be accepted in lieu of structural drawings sealed by a professional engineer. (Note: only the tank is excluded from the building permit, however foundation and supports and associated structures of the tank require a building permit).
4.0 STRUCTURES DEEMED NOT TO BE "BUILDINGS"

According to the interpretation of the Ontario Building Code Act, Clause 1, the following facilities are not considered "buildings" and therefore do not require Building Permits.

- Except as listed in section “Buildings Requiring Permits” of this specification, all:
  - hydro dams
  - tailing dams
  - dams (under jurisdiction of Natural Resources)
  - electrical substations
  - electrical distribution systems
  - Railway and highway bridges (not including Pedestrian Bridges)
  - Process pipelines (overhead and buried)
  - Process thickeners and clarifiers
  - Flotation Cells and Flotation columns
  - All process equipment
  - Weirs, dykes and dredging facilities
  - Proprietary storage tanks
  - test towers (Divisional Shops)
  - cooling towers
  - railroad installations

- Whether located inside or outside of a building, all:
  - Equipment and machinery (furnaces, converters, pumps, motors, fans, blowers, crane hoists and bridges (not runways), etc.)
  - Process equipment and machinery
  - Electrical installations and distribution for process
  - Process heating, ventilation, air-conditioning, dust collection and fume collection
  - Process piping systems
  - Boilers, generators, water treatment facilities and effluent treatment facilities

- Any changes, modifications or alterations to buildings which do not affect the structural load bearing elements of the building, and which do not alter the fire exits, safety, usage or occupancy of the building.

5.0 PERMIT FEES

According to the Ontario Building code, a permit fee is required on applications for and issuance of permits. This fee is collected by local municipalities and must not exceed the anticipated reasonable costs of the municipality to administer and enforce this act. The City of Greater Sudbury charges this fee as a percentage of the construction value.

The construction value of a building includes the cost of building foundations, superstructures, building services (lighting, plumbing, heating, ventilation and air conditioning, equipment supports, consultant engineer’s fees and Harmonized Sales Tax (HST). Refer to Engineering form NAV-TE-
0202. The value of construction should not include the cost of process equipment and piping and process services and any other building, process or structure listed in section “Buildings Not Requiring Permits” and section “Structures Deemed Not to Be Buildings” of this document.

In addition to building permit fees, the City of Greater Sudbury also charges a fee for land development as per development charges By-Law. This development charge applies only on new buildings and on the extension of existing buildings. If the gross area of the extension to an existing building is less than 50% of the gross area of the existing building, the development charge is zero. If the gross area of the extension is more than 50% of the gross area of the existing building, the development charge is payable on the amount by which the extension exceeds 50% of the gross area of the existing buildings. The development charges are calculated based on the gross area (per Square foot) of the new buildings or building extension. Gross area is calculated as the total area of all floors whether at, above or below grade.

6.0 REFERENCE DOCUMENTATION

The following documents are related to this specification and shall be used to their latest revision:

<table>
<thead>
<tr>
<th>OBC</th>
<th>Ontario Building Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudbury</td>
<td>Building Permit Application Forms – Sudbury {link}</td>
</tr>
<tr>
<td>NAV-TE-0202</td>
<td>Building Permit Estimate - Sudbury {link}</td>
</tr>
<tr>
<td>NAV-TE-0204A</td>
<td>General Review Report - For Building Permit {link}</td>
</tr>
</tbody>
</table>
7.0 REVISION AND TRANSITION NOTES

Revision notes describe: what was changed, and if applicable, why it was changed, and the plan to implement the change, including whether changes are retroactive.

Note: The revision notes are a summary of the changes and may not necessarily be a complete list.

A risk code is entered for each revision and if applicable, the revision notes will describe how risk was addressed for the revision.

<table>
<thead>
<tr>
<th>Risk Code</th>
<th>Risk Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>This revision is a minor change and/or introduces no risk.</td>
</tr>
<tr>
<td>B</td>
<td>Risk has been addressed for this revision by the reviewer and approver. Low risk or no new hazards identified.</td>
</tr>
<tr>
<td>C</td>
<td>For this revision, a PHR or other risk management tool has been used to address risk and minimize hazards. This risk assessment has been documented and is available through Central Engineering.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revision Notes</th>
<th>Risk Code</th>
<th>Approved by</th>
<th>Reviewed by</th>
<th>Issue Date YYY/MM/DD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Document format and number changed due to Vale Engineering Document Program changes in 2011. Previous Standard number 0401-01.01.011 Rev 8</td>
<td>---</td>
<td>AA</td>
<td>AD</td>
<td>2012/03/31</td>
</tr>
<tr>
<td>2</td>
<td>Section “Buildings Requiring Permits” expanded to clarify more inclusions and exclusions</td>
<td>---</td>
<td>AA</td>
<td>AA</td>
<td>2012/08/01</td>
</tr>
<tr>
<td>3</td>
<td>Document Reviewed – Format Updated - Clarifications added regarding charges and fees; Content added regarding Office &amp; Construction trailers, and tanks.</td>
<td>A</td>
<td>A.Alaeddine</td>
<td>A.Delost</td>
<td>2016/09/20</td>
</tr>
</tbody>
</table>