Blasting in Halifax

Community Planning & Economic Development Committee

January 11, 2019
Introduction

General Blasting Regulations

Quarries
NS General Blasting Regulations (OH&S Act), Public & Workplace Safety

NS Activities Designation Regulations, Property Damage & Nuisance

Construction Sites
NS General Blasting Regulations (OH&S Act), Public & Workplace Safety

HRM Blasting By-law, Property Damage & Nuisance, 2,500 Blasts per Year
Objectives of the By-law

• Regulates Impacts of Blasting
  – Establish “thresholds” & involve the relevant professionals in blast design and monitoring

• Provide information to residents for claim settlement
  – Monitoring standards

• Does NOT address Occupational Health & Safety

• Does NOT apply to Quarries
Blasting By-law
Key Provisions

Threshold Limits for Vibration and Air Blast Limits

Limit for Vibration Based on Safe Limit to Prevent Cracking in Plaster Walls

Air Blast Limit Based on Nuisance 128 dBa
# How Much is 128 dB?

<table>
<thead>
<tr>
<th>Noise Level</th>
<th>Pressure Ratio</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 dB</td>
<td>1</td>
<td>Lowest Measurable</td>
</tr>
<tr>
<td>70 dB</td>
<td>3,000</td>
<td>Normal Conversation</td>
</tr>
<tr>
<td>80 dB</td>
<td>10,000</td>
<td>Busy City Street</td>
</tr>
<tr>
<td>100 dB</td>
<td>100,000</td>
<td>Shouting at Close Range</td>
</tr>
<tr>
<td>120 dB</td>
<td>1 Million</td>
<td>Loud Rock Concert</td>
</tr>
<tr>
<td>128 dB</td>
<td>2.5 Million</td>
<td>Blasting Bylaw Limit</td>
</tr>
<tr>
<td>140 dB</td>
<td>10 Million</td>
<td>Drywall can crack</td>
</tr>
</tbody>
</table>
Blasting By-law

Key Provisions – cont’d.

Blast Monitoring Standards
   Requires “Qualified Monitor” to Be an Engineer or Geoscientist

Limit Weight of Explosive Charge Based on Distance to Nearest Structure
   Minimizes Effects on Schools, Hospitals, Wells, Septic Fields, Utilities
   Pre-Blast Area Based on Maximum Weight of Explosive Used
Blasting By-law
Key Provisions – cont’d.

Easier Access to Pre-blast Survey
Better Notification
Dedicated Inspector
Special Powers of the Inspector
  e.g. – Heritage Properties, Public Meetings, Compliance Monitoring
By-law can be found at: