

**ASEC 2008  
ABSTRACT**

<b>Title of abstract:</b>	Blast vibration effects on historical buildings
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<b>Abstract:</b>	<p>Vibration damage, or the prospect of it, on neighbouring properties is a considerable constraint on mining operations in the NSW Hunter Valley, which contains a large number of sensitive heritage-listed structures. Development conditions typically limit ground vibrations at such structures to a peak particle velocity (PPV) of 5 mm/s or less.</p> <p>The authors have been engaged in the monitoring of a number of such buildings and, as a result, question the required vibration limits and the basis on which they have been set. Investigation into the background for the requirements, observation of buildings over a long period of time and dynamic modelling of a typical building have resulted in the conclusion that the vibration limits should be reviewed with higher limits being justified in many cases.</p>