Miami Lakes Blasting Advisory Board Recommendation 2019

Recommendations:

1. Blast monitoring should be done by no less then three seismographic monitoring stations arranged in a non-linear array to properly characterize the wave intensity/properties.
   1. These stations should be monitored by an independent entity as outlined by Regional Authority and the raw data and resultant interpretation be publicly reported/posted.
   2. All sites should be standardized.
2. Blast intensity Peak Particle Velocity (PPV) should be reduced to no greater than 0.25 inches/second (0.635 cm/sec.).
3. Blast monitoring authority would be transferred from the Fire Marshall’s Office to an entity/authority located if each of the 6 regions of the State as specified in the RESPEC Study (see addendum)
   1. Each of these regions have a different sub-stratum and a Blast Wave will propagate differently through each region and affect (homeowner/business/government) structures differently.
   2. Each Regional Authority will be responsible for the monitoring of wave intensity and set standards as to how that regional wave is affecting building (homeowner/ business/government) structures.
4. As blast damage may not be readily apparent at the time of the blast it is this committee’s recommendation that the Statute of Limitations to make a claim be extend to no less than 36 months.
   1. While a large destructive blast would shatter windows and be readily apparent, lower intensity blast vibrations may accelerate “material fatigue failure” in building structures and hence the damage caused by “material blast fatigue” may not become immediately apparent.
   2. Liquification of soil may also cause damage to structures over time outlined in the report entitles: REVIEW OF PRESENT PRACTICES USED IN PREDICTING THE EFFECTS OF BLASTING ON CORE PRESSURE. GR-85-9, November 7, 1985 Engineering and Research Center U.S. Deportment of the Interior Bureau of Reclamation Division of Research and Laboratory Services Geotechnical Branch, among others.
   3. “Soil liquefaction occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress such as shaking during an earthquake or other sudden change in stress condition, in which material that is ordinarily a solid behaves like a liquid.”
5. Companies that carry out blasting operations will carry enough liability insurance coverage or provide proof of bond that would be posted on an annual basis to each of the ~~6~~ Regional Authorities in order to cover incidental damage to area structures caused by their blasting operations.
6. Each Regional Authority will use independent adjusters to determine alleged damages from blasting operations.
7. A specified surcharge (determined for each of the 6 specified Regional Authorities) be placed per ton of aggregate removed, that would be used by each regional authority to assist in the repairing of incidental damages as percentage costs are based on specific area for cost of construction attributed to blasting operations.