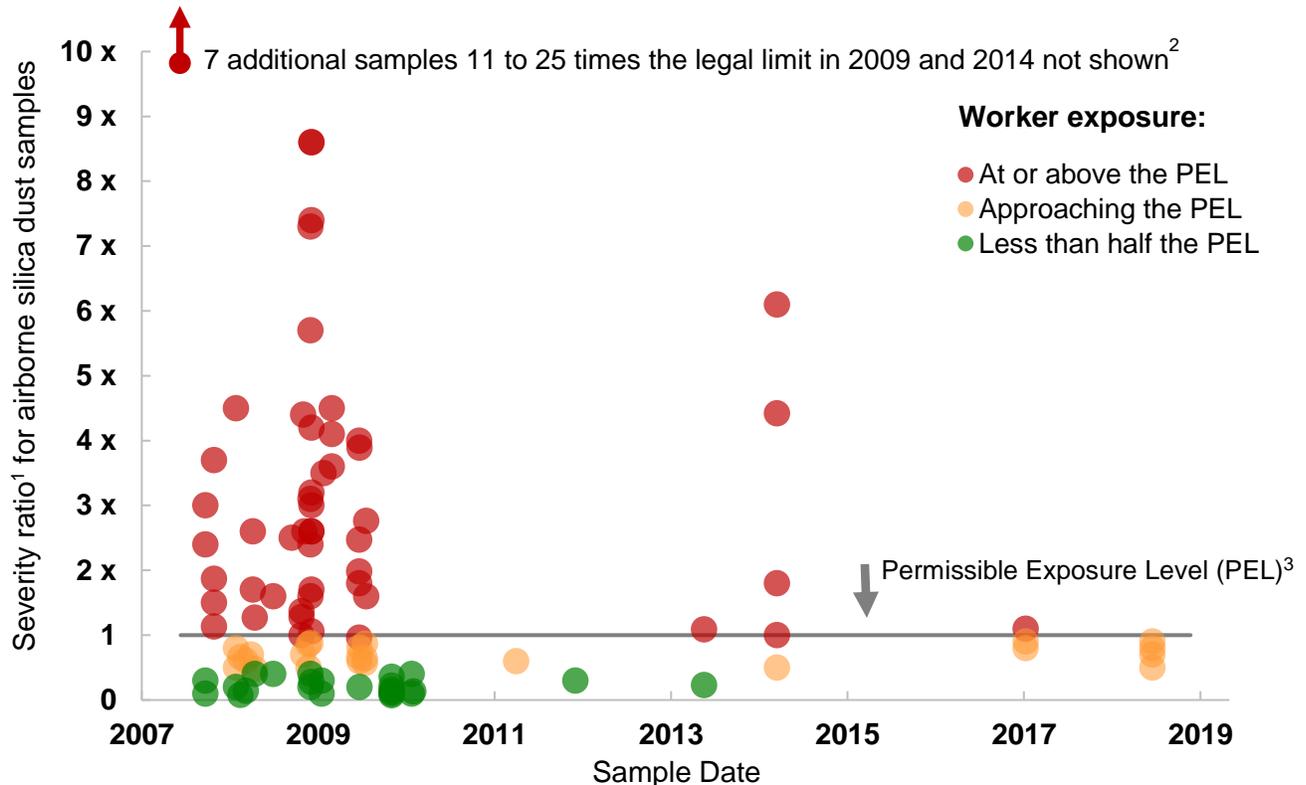


## Silica exposures frequently exceed the legal limit in stone fabricators

WA L&I Division of Occupational Safety and Health (DOSH) Air Sampling, 2007-2018



**Silica dust exposure in stone fabricators has frequently exceeded the legal limit.** SHARP recently confirmed that a Washington stone fabricator has developed accelerated silicosis, a disabling lung disease. There are other [known](#) and emerging cases throughout the US. With few recent inspections in this industry, current exposure trends are not well characterized. Employers should assess their current exposure levels to reduce the risk of disease.

- Data includes 29 employers (106 air samples) with a single L&I compliance inspection each, in which 65% of employers had one or more air sample exceed the PEL.
- Each dot is a personal time-weighted air sample taken during countertop fabrication work. Because sample dates (day and month not shown) are unique and associated with a single inspection, data points stacking in a column should be interpreted as coming from the same inspection.
- A revised [respirable crystalline silica](#) rule is in effect for all industries, with an effect date of July 1, 2019 for non-construction employers. It includes a reduced PEL and medical surveillance for workers exposed above the PEL.

1. Severity ratio is the measured 8-hr or 15-minute Time Weighted Average (TWA) silica concentration divided by the appropriate PEL. A ratio of 1.0 is equal to the PEL; ratios above 1.0 exceed the PEL.
2. Samples not shown have severity ratios of 10.8, 11.4 (2), 12.9, 15.7 and 25.4 from 2009 and 11.1 from 2014.
3. The Permissible Exposure Levels (PEL) for respirable crystalline quartz were 100  $\mu\text{g}/\text{m}^3$  (8-hr, n=71) and 300  $\mu\text{g}/\text{m}^3$  (15-min, n=2) and for cristobalite were 50  $\mu\text{g}/\text{m}^3$  (8-hr, n=30) and 150  $\mu\text{g}/\text{m}^3$  (15-min, n=2) at the time of sampling.