

Portland Cement Association

Occupational Exposure to Crystalline Silica at Portland Cement Terminals

Office of Information and Regulatory Affairs

February 26, 2016

About PCA

- PCA was formed in Chicago IL in 1916.
- Today, PCA has offices in Chicago IL and Washington DC.
- PCA represents more than 92.5% of U. S. cement industry manufacturing capacity.
- Our members operate plants in 33 states with cement distribution terminals in all 50 states.
- PCA supports the comments of the American Chemistry Council Crystalline Silica Panel filed on this rule on February 11, 2014.*

* PCA is part of the Concrete and Masonry Silica Coalition, which is a member of the Crystalline Silica Panel of the American Chemistry Council.

Difference Between Cement and Concrete

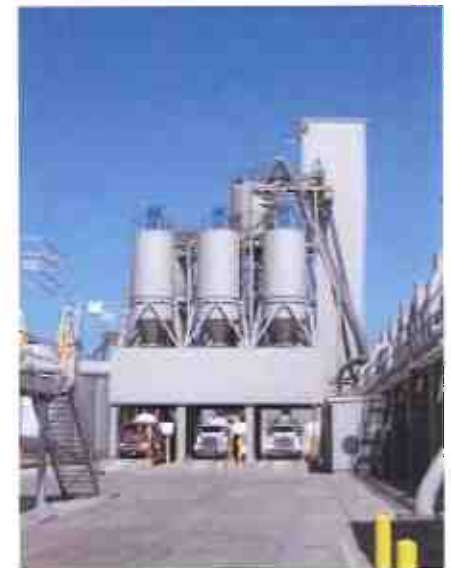


Cement Terminals

- Cement terminals fall within OSHA jurisdictional authority.
- There are approximately 250 cement terminals with 750 employees in the United States and its territories.
- Cement is pneumatically/mechanically loaded and unloaded, warehoused, stored or otherwise handled.

Cement Terminal Operations

- Pneumatic loading of trucks
- Bin and silo Storage of cement and cement products
- Offloading of railcars



Discussion Today

- The results of inhalation surveys between 1999 and 2014 showed that 94.4% of cement terminal employee exposures to respirable crystalline silica are non-detectable; the remaining exposure results are well below the proposed action level.
- Based on these results, Portland cement terminals should not be included in the final rule.

Inhalation Surveys to Detect Crystalline Silica Exposures Among Cement Terminal Employees

- 108 Individual Exposure Assessments
 - 10 Individual Assessments Taken On January 29 and February 4, 2014 (Detroit, MI, and Houston, TX)
 - 98 Individual Assessments Taken from 1999 – 2013 (Twenty states including AZ, AR, FL, GA, ID, IA, KS, LA, MD, MI, MN, NJ, NY, OH, OK, PA, TX, VA, WA, WI)
- 102 Exposure Results Were Below Analytical Detection Limits (94.4% Total Results)
 - The remaining 6 samples were well below the proposed action limit of 25 micrograms per cubic meter as an 8-hour TWA. (3 @ $6\mu\text{g}/\text{m}^3$, 1 @ $13\mu\text{g}/\text{m}^3$, 1 @ $15\mu\text{g}/\text{m}^3$, 1 @ $19\mu\text{g}/\text{m}^3$)
- 108 assessments for an approximate 750 employee population represent a robust and reliable survey.

Inhalation Surveys to Detect Crystalline Silica Exposures Among Cement Terminal Employees

- All 108 samples were analyzed by American Industrial Hygiene Association accredited laboratories using NIOSH Method 7500.

Portland Cement Terminals Should Be Removed From The Rule.

- The data show that there are no exposures above the action level.
- Based on experience in collecting the individual exposure data for the surveys, the regulatory burdens for assessing individual exposures at cement terminals aren't justifiable.
- Cement terminals should be excluded from the final rule.



Portland Cement Association

1916-2016

Celebrating 100 Years of Excellence



America's Cement Manufacturers*

concrete makes good

think
harder.
concrete®

QUESTIONS