Important Notice on New OSHA Respirable Silica Standard

September 21, 2017

Dear Valued Customer,

LATICRETE takes health and safety concerns very seriously, especially when it affects our industry, customers and users of our products. We would like to share information with you regarding a new standard issued by OSHA and the proactive testing and actions we have taken to comply with the new standards – bringing you the highest level of service and quality possible.

The Occupational Safety and Health Organization (OSHA) has scheduled new exposure limits for respirable silica to go into effect this month, September 2017. The standard "*requires employers to limit worker exposures to respirable crystalline silica and to take other steps to protect workers*". According to OSHA- *"the construction standard does not apply where exposures will remain low under any foreseeable conditions; for example, when only performing tasks such as mixing mortar; pouring concrete footers, slab foundation and foundation walls; and removing concrete formwork."*

Out of an abundance of caution, we have validated through independent testing that LATICRETE® products are in conformance with the new OSHA standard – in fact registering well below the maximum exposure limits set.

Attached is our independent 3rd party analysis summarizing test results of air sampling for various LATICRETE products conducted in July 2017. Should you have any questions regarding this testing, please contact LATICRETE Technical Services at 800.243.4788 ext.235 or technicalservices@laticrete.com.

Sincerely,

Sean Boyle

Sean Boyle
Vice President, Marketing North America

FUSS & O'NEILL
Manufacturing Solutions, LLC

August 16, 2017

Dr. Randall Bright
Technical Director
LATICRETE International
One LATICRETE Park North
Bethany, CT 06524

RE: Laboratory Airborne Respirable Silica Assessment

Dear Dr. Bright:

This letter report summarizes the results of air sampling conducted by Fuss & O'Neill Manufacturing Solutions (FOMS) in the Analytical Lab at One LATICRETE Park North, Bethany, CT on July 13, 2017. Results for the two respirable components of concern of crystalline silica are compared to the new exposure limits of the Occupational Safety and Health Administration (OSHA).

Conclusions and Interpretation of Results

1) No respirable silica was measured above the detection limits in any of the samples listed below.

2) All samples reported "less than" quantities of respirable silica components, and would clearly fall under OSHA's "action level" of 0.025 mg/m³ for crystalline silica for an eight-hour TWA. (The action level is one-half of the new permissible exposure limit (PEL).

3) The relevant sections of the new OSHA construction standard for respirable silica, 29CFR 1926.1153, read as follows (emphasis added):

1926.1153(d)(2)(i)-*The employer shall assess the exposure of each employee who is or* ***may reasonably be expected to be exposed to respirable crystalline silica at or above the action level*** *in accordance with either* ***the performance option*** *in paragraph (d)(2)(ii) or the scheduled monitoring option in paragraph (d)(2)(iii) of this section.*

1926.1153(d)(2)(ii)-The performance option states: "*The employer shall assess the 8-hour TWA exposure for each employee on the basis of any combination of air monitoring data or* ***objective data*** *sufficient to accurately characterize employee exposures to respirable crystalline silica.*"

1926.1153(b)-Objective data is defined as "*information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to respirable crystalline silica associated with a particular product or material or a specific process, task or activity.*" OSHA goes on to specify that "*the data must reflect workplace conditions closely resembling* ***or with a higher exposure potential*** *than the processes, types of material, control methods, work practices and environmental conditions in the employer's current operations.*"

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August 16, 2017

4) The objective data gathered from the lab sampling may be able to meet OSHA's exposure assessment requirement or show that there is no reasonable expectation that there will be an exposure to respirable silica over the action level.

Operational Description / Sampling Methodology

Testing was carried out on a single day in 66-liter, clear plastic tubs using standard industrial hygiene sampling protocols. SKC AirCheck sampling pumps, set to 2.5 liters/minute, were connected to pre-weighed PVC filters fed by SKC aluminum cyclone particle separator devices. (These cyclones provide sharp size selection between inhalable and respirable fractions at 4 m.) Cyclones were placed in the center of each tub, with the top closed. Testing was carried out continuously over a period of three (3) hours with test material periodically dropped into the tub from the top. The period of addition was chosen for each product to resemble, but clearly exceed, an exposure experienced in the field.

Analysis: Respirable Crystalline Silica

Analytical Method: X-Ray Diffraction;
NMAM (NIOSH Manual of Analytical Methods) 7500 - PVC Filter
Prep date: 07/13/17 Analysis Date: 07/14/17

LATICRETE Product	Air Volume (Liters)	Component	Measured Amount (µg)
253 Gold	441	Quartz	Below OSHA Action Level*
		Cristobalite	Below OSHA Action Level
254 Platinum™	445	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
257 Titanium™	437	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
LHT™	434	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
4-XLT™	454	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
TRI-LITE™	432	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
PERMACOLOR® Grout	454	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
PERMACOLOR® Select Grout	454	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
3701 Fortified Mortar Bed	457	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
NXT Level™	459	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
NXT Level™ Plus	466	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
SPECTRALOCK® Sand	445	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
MVIS™ Thin Brick Mortar	454	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
MVIS™ Hi-Bond Veneer Mortar	445	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level
MVIS™ Premium Mortar Bed	457	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level

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MVIS™ Premium Pointing Mortar	454	Quartz	Below OSHA Action Level
		Cristobalite	Below OSHA Action Level

* OSHA "Action Level" = 0.025 mg/m3, calculated as an 8-hour Time Weighted Average (TWA)

The sample media were delivered to the ESIS Environmental Health Lab (EHL), an AIHA-approved Laboratory (AIHA-LAP, LLC accredited laboratory #100127), in Cromwell, Connecticut for analysis.

Crystalline silica analysis performed by an external lab. The lab is accredited by AIHA (ISO 17025) in this specific field of test.

Thank you for the opportunity to provide this support to LATICRETE International, Inc.

Sincerely,

Donald Gardner, CSP
Associate

Cc: Sean Boyle
Shawn O'Rourke