





EEI–EPRI Collaborative Industrial Hygiene Sampling Archive: Status Update 2020



Figure 1. Worker wearing a respirator that prevents inhalation of fine crystalline silica or beryllium particles.

On May 1, 2020 the Edison Electric Institute (EEI) and the Electric Power Research Institute (EPRI) opened on-line registration and initial data input for the EEI–EPRI Collaborative Industrial Hygiene Sampling Archive. Since then, EEI and EPRI members have been uploading industrial hygiene sampling data for crystalline silica and beryllium, both of which are substances regulated by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) because of their potential for negative respiratory health outcomes (Figure 1).

This archive is the product of collaboration between EPRI and EEI on a major industry initiative. It promises industry-wide data to inform stakeholders—such as OSHA—about actual crystalline silica (Figure 2) and beryllium (Figure 3) exposures sustained by electric power workers and may show opportunities to enhance policies and practices to promote worker protection. In addition, these data

may help the industry to identify knowledge gaps that could lead to new lines of EPRI research. While the database is initially accepting crystalline silica and beryllium exposure data, it will be expanded to include additional substances and agents.

The archive is an on-line database of standardized anonymous records, vetted for quality control, that users can query for company or industry-wide information. It replaces independent sampling databases previously being developed by each Institute, reducing redundancy and cost. Two important member-requested features of the archive include:

• *Easy-to-use data interface.* Participating companies can enter individual data records into industry-approved spreadsheets or directly upload spreadsheet sets of all their data records at once. The data entry system is carefully designed to capture essential information needed to characterize crystalline silica or beryllium exposures in the workplace. Approved sampling records

become immediately available to be sorted, filtered, and saved as spreadsheet reports, or used to develop custom analytical and comparative reports. An improvement in progress will allow efficient batch approval or rejection of samples.



Figure 2. Silica dust. Crystalline silica, also known as quartz, is the oxidized form of silicon (SiO₂).



Figure 3. Beryllium (Be) crystals.

Table 1. EEI–EPRI Collaborative Industrial Hygiene Sampling Archive Status Report,

November 16, 2020

Sampling Status	September 2020	October 2020	Change
Silica Samples			
Pending	459	350	-109
Approved	8	65	57
Total	467	415	-52
Silica Legacy Data			
Provided	1097	1097	0
Available	0	0	0
Total	1097	1097	0
Beryllium Samples			
Pending	50	50	0
Approved	0	0	0
Total	50	50	0
Beryllium Legacy Data			
Provided	326	326	0
Available	0	0	0
Total	326	326	0
Users/Data Contributors			
Administrators	4	4	0
Users	11	11	0
Total	15	15	0

Table 2. EEI-EPRI Collaborative Industrial Hygiene SamplingArchive Project Team, 2018-2019

Utility Representatives		
Matt Orr, Ameren		
Michael Meade and Kay Hawkins, American Electric Power		
James Gartland, Duke Energy		
Sanita Walker-Resper, Exelon		
Donald Louie, Los Angeles Department of Water and Power		
Gary Hatcher, NiSource		
Kate Nichols, Southern Company		
Kathleen Delaney, Tri-State Generation and Transmission Association		

Administrators	
Eric Bauman, EPRI	
Carren Spencer, EEI	
Megan Leonhard, Exponent	
Keith Williams, Intec	



• **Rigorous data quality control.** The data entry system acts as an initial quality control screen. Uploaded records undergo additional quality control review, including questions to and edits from participants, before final inclusion in the database. In an announcement to members of EPRI Program 62, Occupational Health and Safety, Program Manager Eric Bauman noted, "... you said you wanted to assure data would be qualified, so you could count on it. This is what we established."

Table 1 summarizes the numbers of silica and beryllium samples in the archive as of November 16, 2020. A total of 52 silica records were removed from the archive because they did not meet inclusion guidelines (see "change"). Participating companies are encouraged to submit more data, especially beryllium samples.

A joint EEI–EPRI Project Advisory Committee guided database development (Table 2) and continues to monitor performance and user requests for the inclusion of new agents. EEI's contractor, Intec, developed the on-line application and provides user support. EPRI's contractor, Exponent, assures the quality of industry samples uploaded to the database.

Further Resources

The EEI–EPRI Industrial Hygiene Archive is available to EEI and EPRI members and their contractors at: https://app.esafetyline.net/iharchive

EEI–EPRI Collaborative Industrial Hygiene Database. EPRI, Palo Alto, CA: 2020. 3002018134. Fact Sheet.

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

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Electric Power Research Institute

3420 Hillview Avenue, Palo Alto, California 94304-1338 • PO Box 10412, Palo Alto, California 94303-0813 USA • 800.313.3774 • 650.855.2121 • askepri@epri.com • www.epri.com

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