

INTEGRITY ENVIRONMENTAL SERVICES, INC.

Standard Operating Procedures (SOP)

Silica

Revised 1/2018

INTEGRITY ENVIRONMENTAL SERVICES, INC
SILICA OPERATIONS
STANDARD OPERATING PROCEDURES

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PURPOSE

Silica, crystalline (respirable size) may be harmful if ingested, inhaled, or absorbed through the skin. It causes irritation to the gastrointestinal tract, respiratory tract, skin, and eyes. It is classified by IARC as Group 1, carcinogenic to humans. Crystalline silica has many uses. It can occur naturally as agate, amethyst, chalcedony, cristobalite, flint, quartz, tridymite, and sand. Sand silica can be used for roads, concrete construction, in foundry castings, in abrasives, and in the manufacture of glass, ceramics, and silicon.

TRAINING

Before any silica work will be completed, training must take place with at least one employee on site who will be completing the work required. This employee will complete and pass a competent person silica test given to him by a previously trained manager or competent person. This test will teach the specific hazards involved with working with silica and include decontamination and emergency procedures. Integrity will keep a copy of the training in employees job file, and the competent person will keep a laminated card proving their competency while completing silica work. This person then becomes the competent person on site and can oversee all silica work being completed and have ultimate authority to stop any unsafe work. Training refreshers will be provided annually.

TABLE 1

Table 1 provides engineering and work practice controls assigned with tasks and specific respirator requirements. Which, when followed, dismiss the need for air monitoring, and

classify work as being completed below the permissible exposure limit. Reference Table 1 to determine PPE and air sampling requirements.

http://cdn2.hubspot.net/hubfs/121786/pdfs/Technical_Bulletins/WB-2740_Silica_Table_Technical_Bulletin_9-16.pdf?t=1479320774413

RECORD KEEPING

Individuals performing silica work where air sampling is required according to Table 1 will take air samples. These samples will be submitted to lab for analysis and kept in Integrity files for future reference. Project managers will record specific equipment used to perform silica work including any attachments and engineering controls to minimize dust exposure and keep on file for future reference.

WORK METHODS

All silica work will comply with Table 1 requirements when applicable. Indoor work will use appropriate containment methods to minimize dust exposure filtered by HEPA fans alongside use of HEPA vacuums and adequate wet methods. Exterior work will comply with Table 1 requirements when applicable. Work done outside of Table 1 will be completed using a regulated area reaching out to the extent of dust migration, HEPA vacuums, wet methods, and equipment via manufacturers' instructions, while taking air samples to monitor employee exposure.

PPE

Integrity requires employees to use P100 filters on half face respirators during all silica work unless deemed unnecessary by Table 1 or once deemed unnecessary by air sampling. Employees expected to wear respirators are also expected to wear disposable suits to prevent silica exposure after work is completed.