



New Rules: Respirable Crystalline Silica (RCS) Medical Surveillance

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Crystalline silica (quartz, cristobalite, and tridymite) causes adverse effect on the health of our lungs.

Respirable Crystalline Silica (RCS) is the respirable dust fraction of crystalline silica, which enters the body by inhalation (<10 microns in aerodynamic diameter).

The adverse health effects of silica exposure include silicosis, COPD, emphysema, renal disease, lung cancer, autoimmune disease, and activation of latent TB. Silicosis is one of the oldest known occupational diseases and caused by the inhalation of RCS. Nodular progressive fibrosis is caused by the deposition in the lungs of respirable particles of crystalline silica. The hallmark of the chronic form of silicosis is the silicotic islet or nodule, one of the few agent-specific lesions in pathology. There are three requirements for the clinical diagnosis of silicosis:

- Recognition by the physician that exposure to crystalline silica has occurred

- The presence of chest radiographic abnormalities consistent with silicosis
- The absence of other illnesses that could resemble silicosis on a chest radiograph

All medical examinations and procedures required by the RCS standard (29 CFR 1910.1053) must be performed by a physician or other licensed healthcare professional (PLHCP). Medical surveillance must be provided at no cost to employees, including the cost of travel, time spent traveling, and taking medical examinations.

The baseline/initial exam occurs within 30 days of initial assignment, unless the employee has had an exam that meets the requirements of the standard within the last three years. Periodic exam occurs every three years or more frequently if recommended by the PLHCP. The employer must provide a description of the employee's:

- Former, current, and anticipated duties as they relate to the employee's occupational exposure to RCS
- Current and anticipated levels of

occupational exposure to RCS

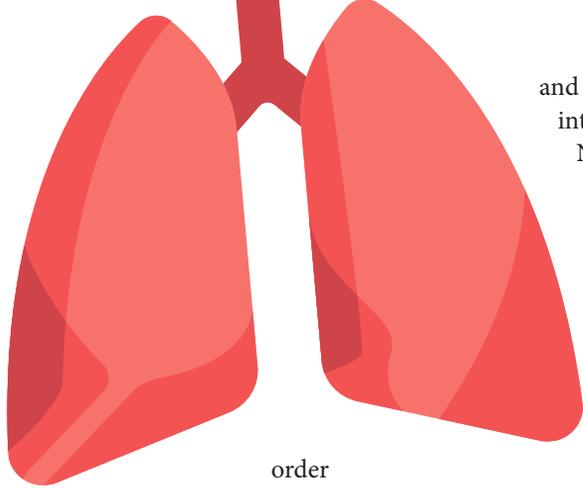
- Personal protective equipment used or to be used by the employee
- Information from records of employment-related medical examinations previously provided to the employee and currently within the control of the employer

Medical/Work History Components -

Past, present, and anticipated exposure to RCS, dust, and other agents affecting the respiratory system; any history of respiratory system dysfunction, including signs and symptoms of respiratory disease; history of TB; smoking status and history; past or current medical conditions (renal, cardiac, connective tissue, and other health risks such as immune suppression).

Physical Exam Components - Emphasis on respiratory system, include cardiac system, extremity evaluation (clubbing, edema, joint abnormalities), and other organ systems as identified during history.

TB Testing Components - Required at baseline on initial examination only. The PLHCP is allowed under the standard to



order
additional tests

or test at a greater frequency
than the requirement.

Pulmonary Function Testing

Components - Initial exam and every three years. Testing **MUST** be administered by a spirometry technician with a current certificate from NIOSH-approved spirometry course. If abnormal spirometry, the PLHCP may consider further evaluation or limitations on the employee's exposure to RCS.

Chest X-Ray (Single Posteroanterior View) Components - Initial exam and every three years. Must be interpreted

and classified according to the ILO international classification by a NIOSH-certified B reader. If the chest X-ray is classified as 1/0 or higher by the B reader, PLHCP must recommend examination by a board certified specialist in pulmonary disease or occupational medicine.

It is now required an employee consent to the release of information to the employer (authorization for crystalline silica opinion is up to the employer).

The employee may elect to allow only reporting to the employer recommended limitations on respirator use.

The written medical report for the employee must be provided within 30 days of the exam and include results of the medical examination, recommended limitations on the employee's use of respirators, recommended limitations on the employee's exposure to RCS, and a statement that the employee should be examined by a board certified specialist in pulmonary disease or occupational medicine if the chest X-ray is classified as

1/0 or higher by the B reader or if referral to a specialist is otherwise recommended by the PLHCP.

The written medical opinion for the employer must be issued within 30 days of the examination and include date of the examination, statement stating the exam has met the requirements of the standard, and any limitations on respirator use. If the worker gives consent, also include recommended limitations on the employee's exposure to RCS, a statement that the employee should be examined by a board certified specialist in pulmonary disease or occupational medicine if the chest X-ray is classified as 1/0 or higher by the B reader, or if referral to a specialist is otherwise recommended by the PLHCP. ◀



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