SILICA EXPOSURE CONTROL PLAN

Section 1. Introduction

Silica refers to the chemical compound silicon dioxide (SiO_2), the most common form of which is quartz. Sand, a key component in many building products such as mortar, clay and concrete tiles or pavers, and brick, is mainly composed of silica in the form of quartz.

Silica can present a danger to construction workers when these building materials are cut, drilled or ground using powered equipment and abrasive blades, drills or other equipment, resulting in dust containing tiny particles of silica, known as respirable crystalline silica (RCS). These particles are small enough to penetrate to the gas exchange area of the lungs; larger particles cannot travel as deep into the lungs and are purged by natural actions of the body. Respirable particles remain in the lungs and cause permanent scarring of lung tissue, making breathing increasingly more difficult—an occupational disease known as silicosis that often does not manifest until many years after exposure. According to the American Lung Association, silicosis also increases the risk of other lung issues, such as tuberculosis, lung cancer and chronic bronchitis.

In accordance with OSHA's construction silica regulation, 20/20 Plumbing & Heating, Inc. has developed the following written exposure control plan to identify the hazards our workers may be exposed to and the means our company has established to control those hazards, ensuring the safety of our workers and others in proximity to our job sites. RCS is a serious danger that can cause permanent damage, and it is critical for all supervisors and workers to follow the control practices set out in this plan.

Section 2. Scope and Description of Tasks

The OSHA regulation applies to all exposures to RCS in construction workplaces except those where worker exposures will remain below 25 micrograms per cubic meter of air as an eight-hour time-weighted average (TWA) under any foreseeable conditions.

Following are specific tasks a worker for 20/20 Plumbing & Heating, Inc. may perform that could involve exposure to silica, quartz or sand (not necessarily RCS). These tasks were determined based on information found in manufacturers' safety data sheets (SDS) for products being used or installed as well as industry sampling of commonly encountered building products.

- (2a&2b) Abrasive, powered cutting of concrete or grinding of concrete. Including floors and walls.
- (6) Rig-Mounted core saws or drills.
- (7) Handheld and stand-mounted drills including rotary hammer drills.
- (10a&10b) Jackhammers and handheld powered chipping tools when indoors and outdoors.

With worker input, 20/20 Plumbing & Heating, Inc.'s management and supervisors will review this list of tasks at least once a year and supplement or revise it to properly describe tasks that may involve silica, quartz or sand or could result in exposure to RCS. This review will use industry sources of silica information, company sampling and testing, and government agency and third-party research and publications to determine additional sources of RCS exposure that initially may not have been identified.

Prior to the start of any project, 20/20 Plumbing & Heating, Inc.'s supervisors and safety staff will analyze the tasks to be performed on the project and determine whether any of those tasks fall into one of the categories listed above or might involve an exposure to RCS that has not been identified previously. In performing the hazard analysis, a preliminary determination also will be made by 20/20 Plumbing & Heating, Inc.'s company supervisors and safety staff regarding any possible exposure to RCS from sources outside our company's control as well as potential exposures to third parties who may be affected by our company operations. Hazards identified will be addressed by company staff in consultation with third-party entities if applicable and procedures to control those hazards will be incorporated into this plan.

Any identified task that exposes—or reasonably is expected to expose—company workers to RCS at or above the action level requires company supervisors and safety personnel to follow OSHA's Table 1 work practices or assess the nature of the exposure by air monitoring or objective data comparison sufficient to characterize the exposure.

Section 3. Limiting Worker Exposures to RCS

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
1	Stationary masonry saws	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
2a	Handheld power saws (any blade diameter) when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for tasks performed outdoors only	• Use saw equipped with commercially available dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None
4a	Walk-behind saws when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
4b	Walk-behind saws when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
5	Drivable saws for tasks performed outdoors only	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
6	Rig-mounted core saws or drills	• Use tool equipped with integrated water delivery system that supplies water to cutting surface.	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		• Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.		
7	Handheld and stand-mounted drills (including impact and rotary hammer drills)	• Use drill equipped with commercially available shroud or cowling with dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	None	None
8	Dowel drilling rigs for concrete for tasks performed outdoors only	• Use shroud around drill bit with a dust collection system. • Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
9a	Vehicle-mounted drilling rigs for rock and concrete	• Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	None	None
9b	Vehicle-mounted drilling rigs for rock and concrete	• Operate from within an enclosed cab and use water for dust suppression on drill bit.	None	None
10a	Jackhammers and handheld powered chipping tools when used outdoors	• Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10b	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	• Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

Our workers will follow the above highlighted engineering and work practice control methods and wear the required respiratory protection described in each provision as applicable unless such controls are not feasible.

A. If, while performing tasks described in paragraph A, workers do not fully implement the engineering controls, work practices and respiratory protection described in Table 1, our company will ensure no worker is exposed to RCS in an amount that exceeds the permissible exposure limit (PEL) of 50 micrograms per cubic meter of air as an eight-hour TWA. In addition, our company will analyze air monitoring data or objective data sufficient to accurately characterize worker exposures to RCS.

   Alternatively, our company will perform initial monitoring to assess the eight-hour TWA exposure for each worker on the basis of one or more personal breathing zone air samples that reflect the exposures of workers on each shift, for each job classification, in each work area. Where several workers perform the same tasks on the same shift and in the same work area, our company will sample a representative fraction of these workers to meet this requirement. In representative sampling, our company will sample the worker(s) who are expected to have the highest exposure to RCS.

   If initial monitoring indicates worker exposures are below the action level, we will discontinue monitoring for those workers whose exposures are represented by such monitoring.

   Where the most recent exposure monitoring indicates worker exposures are at or above the action level but at or below the PEL, our company will repeat such monitoring within six months of the most recent monitoring. Where the most recent exposure monitoring indicates worker exposures are above the PEL, our company will repeat such monitoring within three months of the most recent monitoring.

   Where the most recent (noninitial) exposure monitoring indicates worker exposures are below the action level, our company will repeat such monitoring within six months of the most recent monitoring until two consecutive measurements, taken seven or more days apart, are below the action level, at which time we will discontinue monitoring for those workers whose exposures are represented by such monitoring, except as otherwise provided under "Reassessment of exposures" below.

Reassessment of exposures: Our company will reassess exposures whenever a change in the production, process, control equipment, personnel or work practices may reasonably be expected to result in new or additional exposures at or above the action level or when we have any reason to believe new or additional exposures at or above the action level have occurred.

Methods of sample analysis: Our company will ensure all samples taken to satisfy the monitoring requirements are evaluated by a laboratory that analyzes air samples for RCS in accordance with the procedures in Appendix A of 29 CFR §1926.1153.

Worker notification of assessment results: Within five working days after completing an exposure assessment, our company will individually notify each affected worker in writing of the results of the assessment or post the results in an appropriate location accessible to all affected workers. Whenever an exposure assessment indicates that a worker exposure is above the PEL, our company will describe in the written notification the corrective action being taken to reduce worker exposure to or below the PEL.

Observation of monitoring: Where air monitoring is performed to comply with the requirements of this section, our company will provide affected workers or their designated representatives an opportunity to observe any monitoring of worker exposure to RCS. When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required for any workplace hazard, our company will provide the observer with protective clothing and equipment at no cost and ensure the observer uses such clothing and equipment.

B. Procedures described in paragraph B also will be applied to tasks not listed in Table 1 of 29 CFR §1926.1153(c)(1) that may involve exposure to silica, quartz or sand as determined by information found in applicable manufacturers' SDS for products found in the workplace.

C. Methods of compliance:

Engineering and work practice controls: Our company will use engineering and work practice controls to reduce and maintain worker exposure to RCS at or below the PEL unless we demonstrate such controls are not feasible. Wherever such feasible engineering and work practice controls are not sufficient to reduce worker exposure to or below the PEL, we will nonetheless use them to reduce worker

exposure to the lowest feasible level and supplement them with the use of respiratory protection that complies with the requirements of paragraph E below.

D. Respiratory protection, general:

Where respiratory protection is required under our company program or 29 CFR §1926.1153, our company will provide each worker an appropriate respirator that complies with the requirements of this paragraph and 29 CFR §1910.134.

Respiratory protection is required:

- Where specified by Table 1 of 29 CFR §1926.1153.
- For tasks not listed in Table 1 or where the engineering controls, work practices and respiratory protection described in Table 1 are not fully and properly implemented:
  - Where exposures exceed the PEL during periods necessary to install or implement feasible engineering and work practice controls
  - Where exposures exceed the PEL during tasks, such as certain maintenance and repair tasks, for which engineering and work practice controls are not feasible
  - During tasks for which our company has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL.

Respiratory protection program: Where respirator use is required by 29 CFR §1926.1153, our company's respiratory protection program developed under 29 CFR §1910.134 will be applicable.

Section 4. Housekeeping Measures

Compressed air may not be used to clean worker clothing or surfaces if it could contribute to worker exposure to RCS. It may only be used if no other method is feasible.

The use of leaf or debris blowers or dry sweeping or brushing of areas soiled by abrasive powered cutting or grinding of materials containing silica must be avoided if wet sweeping or HEPA-filtered vacuuming could be safely used to clean the areas.

Leaf or debris blowers may be required to clean roof or floor surfaces if wet sweeping or HEPA-filtered vacuuming is not feasible on certain job sites for one or more of the following reasons:

- Slip, trip or fall hazards are created by wet surfaces
- Electrical hazards
- The new roof tile that has been installed will be permanently stained by such action
- Water intrusion may damage other building elements

In instances where wet sweeping or HEPA-filtered vacuuming is determined to be infeasible, 20/20 Plumbing & Heating, Inc. workers will wear disposable particulate respirators (filtering facepieces or dust masks) with a minimum assigned protection factor of 10 (APF 10) to reduce or eliminate potential exposure to RCS. The filtering facepiece must be worn during the cleaning operation and for such time thereafter until the dust cloud dissipates. No other construction contractors should be in the area and/or the area temporarily barricaded to prevent the entrance of unauthorized persons as outlined in Section 5.

Section 5. Procedures to Restrict Access to RCS Work Areas

On projects where potential exposure to RCS exists, 20/20 Plumbing & Heating, Inc. workers will take the following steps to limit exposure to co-workers and third parties:

- On projects with ladder access to roof areas, the base area around the ladder will be flagged with warning lines and high-visibility signage will be posted stating, "Do Not Enter—20/20 Plumbing & Heating, Inc. Workers Only." Ladder use by non-company employees is not allowed and will not be permitted.
- Only company workers needed to perform tasks in the area where potential exposure to RCS may occur will be permitted in that specific work area.
- On projects where third parties may have shared access to work areas where exposure to RCS may exist, 20/20 Plumbing & Heating, Inc. workers will use warning lines and place signage, as described above, to control third parties' access to those areas. If, because of the nature of the access, such as a common stairwell or exterior scaffold stairway, third parties can be denied access to the work area, 20/20 Plumbing & Heating, Inc. workers will post the above signage at the entrance, entry door, or access point to restrict third party entry to the work area.

Section 6. Designation of RCS Competent Persons and Inspection Protocol

The following employees of 20/20 Plumbing & Heating, Inc. are designated "competent persons" for purposes of the OSHA silica regulation by virtue of each individual's knowledge of the hazards related to exposure to RCS, the control methods our company employs to control those hazards, and the authority granted to each to take corrective measures to reduce or eliminate RCS hazards to our workers:

_____	_____
Jacob Davis	_____
_____	_____
_____	_____

Any one or all listed competent persons for RCS will inspect our job sites on a regular basis to assess the tasks being performed and the equipment and materials in place to ensure proper implementation of our company's written RCS exposure control plan. The competent person will note any deficiencies in the plan's implementation and discuss any required revisions with supervisory personnel. If any deficiency is significant enough to immediately affect the health and safety of company workers or others, the competent person has complete authority to stop work until the issue can be resolved. During the inspection process, the competent person also will be responsible for identifying exposures to RCS that may arise from unforeseen activity being performed by third-party entities unrelated to our company work. The competent person immediately will notify company supervisors and management to determine the necessity of action to protect exposed company workers. This may require outreach to those third-party entities as well as establishing additional protocols to maintain the safety of our workers. A dated, written record of all inspections hereunder, with a specific notation as to remedial action taken, if any, will be made by the competent person.

Section 7. Description of Company RCS Worker Training and Information

The hazards related to RCS have been included in company hazard communication training under 29 CFR §1910.1200. In addition, a specific training module, Bob Auer is used for current workers and new hires that review the following:

- Specific health hazards associated with RCS, including cancer dangers, lung or respiratory dangers, and immune system and kidney effects
- Work tasks or other common tasks that could result in RCS exposure

- Specific measures, including engineering controls, work practices and respirator use, that our company has implemented to protect our workers from RCS exposure
- The provisions of the OSHA construction RCS regulation
- The names of RCS competent persons designated by our company under Section 6 of this plan
- The purpose and description of our company medical surveillance program required by the OSHA rule and set out in Section 8 of this plan

The above module will be supplemented on a regular basis with RCS-specific toolbox talks; manufacturer or supplier materials addressing equipment, tools and products as they become available; OSHA training materials such as Quick Cards; and training offered by building owners, general contractors, and engineers or architects on specific projects.

Section 8. Description of Medical Surveillance for RCS Exposures

The medical surveillance provisions that our company will implement for RCS exposures is based on the requirements of 29 CFR §1926.1153 and will include the following:

- 20/20 Plumbing & Heating, Inc. will make medical surveillance available at no cost to any company worker required to use a respirator under 29 CFR §1926.1153 for 30 days or more per year.
- All medical exams required under this provision of the plan must be conducted by a physician or other licensed health care professional (PLHCP) as defined in 29 CFR §1926.1153.
- An initial, baseline medical examination will be made available to a worker within 30 days after an initial assignment unless the worker has had a similar examination within the past three years. The examination must consist of the following:
    a) A medical work history with emphasis on past, present and anticipated exposures 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 tuberculosis; and smoking status and history
    b) A physical examination with special emphasis on the respiratory system
    c) A chest X-ray (a single posteroanterior radiographic projection or radiograph of the chest at full inspiration either recorded on film [no less than 14 x 17 inches and no more than 16 x 17 inches] or digital radiography systems), interpreted and classified according to the International Labor Office (ILO) International

Classification of Radiographs of Pneumoconioses by a NIOSH-certified B Reader

d) A pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV_1) and FEV_1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH-approved spirometry course
e) Testing for latent tuberculosis infection
f) Any other tests deemed appropriate by the PLHCP

- Periodic examinations will be made available by our company every three years or more frequently as recommended by the PLHCP for affected workers. Examinations will include the elements described in (c) above.
- Additional protocols for information to be provided to the PLHCP, the PLHCP's written medical report to an employee and the PLHCP's written medical opinion to our company will follow 29 CFR §1926.1153(h)(4), (5) and (6).
- If the PLHCP's written medical opinion indicates an employee should be examined by a specialist, our company will make available a medical examination by a specialist within 30 days after receiving the PLHCP's written opinion. Our company will ensure the examining specialist is provided with all the information the company is obligated to provide to the PLHCP in accordance with 29 CFR §1926.1153. Our company will ensure the specialist explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of the examination. The written report shall meet the requirements of 29 CFR §1926.1153. Our company will obtain a written opinion from the specialist within 30 days of the medical examination. The written opinion shall meet the requirements of 29 CFR §1926.1153.

Section 9. Recordkeeping

Records of our workers' personal breathing zone sampling to assess RCS exposure conducted on behalf of our company by third parties or those conducted by our staff will be maintained for a period of 30 years from the date of the record's initial creation. The initial record must include:

- The date of the measurement for each RCS sample taken
- The task monitored
- The sampling and analytical methods used
- The number, duration and results of the samples taken
- The identity of the laboratory that performed the analysis
- A description of any PPE worn by workers who were monitored
- The names, job classifications and social security numbers of workers sampled along with similar information for other workers present at

the sampling location who performed similar tasks but were not sampled

This RCS exposure control plan is available for examination and copying by all employees who may be covered under the OSHA construction RCS regulation, their designated representatives, and officials of the U.S. Department of Labor or allied state agencies.

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Bob Auer Safety Manager

20/20 Plumbing & Heating, Inc.
4745 Copper Sage Street, Las Vegas, NV 89115

Date of Initial Review_____

Signature of Competent Person_____

Signature of Safety Director_____

Signature of Company Executive_____