



**Northern Illinois
University**

Silica Exposure Control Plan

Review and Updates

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1. Introduction

Crystalline silica is a basic component of soil, sand, granite and many other minerals. Quartz is the most common form of crystalline silica. All materials containing silica can result in the presence of respirable silica particles when chipping, cutting, drilling or grinding takes place. Silica exposure occurs through inhalation of silica containing particles during various construction and general industry operations. The most severe exposures generally occur during abrasive blasting with sand to remove paint and rust from bridges, tanks, concrete structures and other surfaces. Other activities that may result in severe silica exposure include jack hammering, rock/well drilling, concrete mixing, concrete drilling, brick and concrete cutting/sawing, grinding/crushing, tuck pointing and tunneling operations. Exposure to excessive silica dust over long periods of time can result in silicosis.

2. Purpose

The purpose of the Silica Exposure Control Plan (Plan) is to prevent exposure to the hazards associated with silica and to ensure compliance with the OSHA Respirable Crystalline Silica Standard 29 CFR 1910.1053.

3. Scope

This Plan applies to NIU employees who work with materials containing silica and who are expected to be exposed to respirable crystalline silica dust concentrations at or above the action level.

4. Policy and Regulation

4.1. Northern Illinois University Health and Safety Policy

<https://www.niu.edu/policies/policy-documents/health-and-safety-policy.shtml>

4.2. OSHA Regulation, 29 CFR 1910.1053 Respirable Crystalline Silica

5. Definitions

5.1. The following definitions are provided to allow for a better understanding of the Plan

Action Level:	A concentration of airborne respirable crystalline silica of 25 micro grams per meter cubed. ($25\mu\text{g}/\text{m}^3$), calculated as an 8 – hour Time Weighted Average (TWA).
Authorized person:	An employee who has received proper training to safely work with silica containing materials.
Affected employee:	Any employee required to work under the guidelines set forth in this plan.
Competent Person:	An individual who is capable of identifying existing and foreseeable respirable crystalline silica hazards in the workplace and who has authorization to take

	prompt corrective measures to eliminate or minimize the hazards.
Crystalline silica:	Naturally occurring component in earth soils, sand, granite and other minerals resulting in many building materials containing silica.
Exposure Assessment:	The initial determination to find if any employee may be exposed to silica at or above the permissible exposure level. Until the assessment is completed, employees shall take all precautions necessary to maintain exposures below the PEL.
HEPA:	High Efficiency Particulate Air. A filtering system capable of trapping and retaining at least 99.97% of all particles of 0.3 micron in diameter and larger.
Objective Data:	Information such as air monitoring data from industry-wide surveys or calculation based upon 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.
Permissible Exposure Limit:	(PEL) the OSHA limit for silica dust exposure. It is set at $50\mu\text{g}/\text{m}^3$, averaged over an 8-hour workday, as a TWA.
PLHCP:	Physician or other Licensed Health Care Professional.
Silica containing material:	Any material, which has the potential to contain silica at levels, which may pose a hazard to employees when the material is manipulated to create airborne particles.
Silicosis:	A lung disease caused by inhalation of silica dust. Silica dust can cause fluid buildup and scar tissue in the lungs that cuts down the ability for the lungs to fully function. The disease is not curable, but can be prevented through the use of protective systems.
Amorphous or Fumed silica	A non-crystalline form of silica which does not pose the same health hazard as crystalline silica; it is treated as a nuisance dust.

6. Responsibilities

6.1. Environmental Health & Safety

- 6.1.1. Provide program oversight and consultation to NIU work groups regarding potential risks, exposure prevention and training relating to silica dust exposures.
- 6.1.2. Evaluate potential exposures to impacted employees and facilitate the exposure assessment process as needed.
- 6.1.3. Review and update the Plan annually in accordance with the Respirable Crystalline Silica Standard.
- 6.1.4. Assist affected employees participate in a medical surveillance program as needed.
- 6.1.5. Maintain required medical surveillance records per the Respirable Crystalline Silica Standard.
- 6.1.6. Conduct training to inform affected employees on the applicable requirements set forth in this Plan.

6.2. Supervisors/Foreman (Competent Person)

- 6.2.1. Serve as the “Competent Person” as defined by OSHA on projects in which there is a potential exposure to silica dust.
- 6.2.2. Ensure employees who are expected to work with building materials in which there is a potential risk for silica exposure have access to this Plan, have received proper training, and have received appropriate personal protective equipment.
- 6.2.3. Ensure tools and equipment with features designed to prevent fugitive dust emissions are properly maintained in good working condition.
- 6.2.4. Retain records on file including but not limited to: a copy of the Plan, exposure monitoring data, and training records.
- 6.2.5. Inform the Environmental Health and Safety Department when employee retires or leaves NIU so the thirty year count for retention of records may begin.

6.3. Employees

- 6.3.1. Employees shall follow all aspects of this Plan prior to working in areas or performing tasks where there is an identified risk of silica dust exposure.
- 6.3.2. Employees are to ask the physician or licensed health care professional (PLHCP) conducting their medical evaluations for a hard copy of the medical records generated at the time of their examination.
- 6.3.3. Employees provide an active e-mail address to the PLHCP and NIU’s Environmental Health and Safety Department so to receive a copy of their medical clearance to use respirators.
- 6.3.4. Report to supervisor as soon as the employee has arranged to leave the employ of NIU. Supervisor will inform the Environmental Health and Safety Department so the thirty-year retention of records may begin.

7. Material Assessment

- 7.1. Any time there is a potential for silica containing materials to be involved in a project, sources of silica must be assessed prior to disturbing. The competent person or an authorized person can perform building material assessments to determine silica content in materials.

7.2. Crystalline silica occurs naturally in the earth's crust and is a basic component of sand, concrete, brick, asphalt, granite, some blasting grit and wall spackling materials. Employees can be exposed to silica when conducting activities such as:

- Abrasive blasting
- Jack hammering
- Concrete crushing
- Hoe ramming
- Rock drilling
- Mixing of concrete or grout
- Concrete drilling
- Sawing concrete or bricks
- Grinding
- Chipping or scarifying concrete
- Rock crushing
- Moving or dumping piles of concrete, sand
- Demolition of concrete or brick
- Using coatings containing silica
- Removing coatings containing silica
- Tuck-pointing

7.3. If airborne silica is expected to be generated during the project, the competent person shall be contacted to ensure all safety precautions are followed to minimize exposure to airborne silica dust.

8. Exposure Assessment

8.1. Initial Exposure Monitoring:

- 8.1.1. NIU employees expected to come in contact/work with silica containing materials where there is a risk of exposure through inhalation of dust shall be enrolled in an exposure monitoring program.
- 8.1.2. Exposure monitoring should be conducted on any employee exposed to airborne silica dust as levels may vary based on job duty within a project. For example, the employee performing concrete cutting is exposed at a different level than an employee providing supervision during the work.
- 8.1.3. Exposure monitoring is not required if the task is listed in 29 CFR 1926.1153(c)(1) and the engineering controls, work practices, and PPE listed are used as listed.

8.2. Periodic Exposure Monitoring:

- 8.2.1. Whenever silica exposure levels are greater than, or equal to the Permissible Exposure Level (PEL) ($50\mu\text{g}/\text{m}^3$) for a given project, periodic exposure monitoring is required over the course of the project. It is the responsibility of the affected department to work with EH&S and develop a periodic exposure monitoring schedule.
- 8.2.2. Exposure monitoring is not required for every employee at risk of airborne silica exposure. Sufficient sampling must be performed to enable the employee's exposure level to be reasonably represented.
- 8.2.3. Initial representative sampling
 - If below Action Level of $25\mu\text{g}/\text{m}^3$, monitoring may discontinue;
 - At or above Action Level of $25\mu\text{g}/\text{m}^3$ repeat sampling within 6 months;
 - At or above PEL of $50\mu\text{g}/\text{m}^3$ repeat sampling within 3 months;
 - If non-initial sampling is below AL repeat sampling within 6 months until consecutive results are below AL.

8.3. Termination of Exposure Monitoring:

8.3.1. Periodic exposure monitoring may be discontinued if results from two consecutive sampling periods taken at least 7 days apart show that employee exposure is below the PEL.

8.4. Sampling methods

8.4.1. Personal exposure monitoring will be conducted using an approved NIOSH method. Monitoring records shall include the following:

- A description of the sampling and analytical methods used including the date, number, duration, location and results of each of the samples taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
- The type of respiratory protective devices, if any.
- Name and job classification of the employee monitored.
- Any environmental variables that could affect the measurement of the employee exposure.

9. Exposure Control

9.1. Pre-project planning

9.1.1. The EH&S Department performs hazard assessments of capital improvement projects which includes compliance with applicable codes, environmental remediation where necessary, and a review of potential exposures to hazardous materials including but not limited to silica exposure.

9.1.2. The Project Manager in coordination with the Competent Person is responsible for conducting building material assessments to make determinations if there are any silica containing materials, which may be impacted by the project.

9.1.3. The Competent Person ensures methods for exposure control are provided to the employees prior to work beginning.

9.2. Administrative/Engineering Controls

9.2.1. Where silica exposures at or above the Permissible Exposure Limit have been documented, or are expected, the appropriate engineering or administrative controls will be implemented, where feasible. Follow-up exposure monitoring may be necessary when administrative or engineering exposure controls are utilized. See Table 1.

9.2.2. Typical controls may involve:

- Substituting non-silica containing materials for use while abrasive blasting
- Alternative methods such as pre ordering grout already mixed instead of on-site mixing in bulk
- Local exhaust ventilation
- General ventilation

- Vacuum methods with HEPA filters
- Distance
- Dust control products
- Containment
- Use of water to keep dust down (i.e. wet cutting, wet sweeping, etc.)
- General work practices such as good housekeeping, worker rotation, development of specific SOPs to minimize exposure.

9.3. Personal Protective Equipment (PPE)

9.3.1. In addition to administrative/engineering controls, employees may be required to wear specific PPE during the disturbance of silica containing materials and/or when airborne silica is present. The level of protection will depend on the task being conducted and the tools being utilized to complete the task.

9.3.2. Recommended PPE

NOTE: Respirators are NOT a substitute for engineering controls.

PPE will typically include:

- Respiratory Protection
- Disposable or reusable work clothing to keep from spreading the dust or bringing the dust home
- Leather gloves
- Safety glasses or goggles
- Face shield
- Boot covers or rubber boots

9.3.3. The following table provides recommended respiratory protection levels based on the measured or anticipated exposure levels:

Respirator	Protection Factor	Typical Silica Activity
N95	10	- Used on voluntary basis to control low exposures
Half-face with HEPA filters	10	- Housekeeping (wet method) - Saw cutting (wet method) - Drilling concrete (wet method) - Power tools with dust collection - Equipment operating with open cab
Full-face with HEPA filters	50	- Chipping concrete - Jack Hammering - Power tools without dust collection - Mixing grout in bulk - Vacuum abrasive blasting
Loose fitting PAPR	25	
Hooded PAPR	25	
SCBA (positive pressure mode)	10,000	- Abrasive blasting

10. Housekeeping & Hygiene Facilities

- 10.1. Smoking is prohibited in the work area.
- 10.2. In areas where silica containing dust may be present, all surfaces must be maintained free from accumulations of dust to minimize potential silica exposure. Dust and other silica containing debris must be removed from the work area as soon as possible.
- 10.3. Acceptable methods of silica dust removal include the use of HEPA vacuums or wet methods such as wet mopping/sweeping.
- 10.4. Unacceptable methods of silica dust removal include dry sweeping, vacuum cleaners, shop vacuums, and compressed air.
- 10.5. Follow all recommended procedures and utilize recommended PPE during silica containing debris cleanup activities.
- 10.6. Where silica containing materials are used, impacted, or being removed; the following requirements must be met.
 - 10.6.1. PPE should be removed upon work completion and cleaned after each use. N 95 respiratory protection shall be disposed of after use.
 - 10.6.2. Employees must wash hands and are encouraged to shower prior to leaving work.
 - 10.6.3. Ensure contaminated PPE, including footwear is not worn outside the work area.
- 10.7. Personal hygiene is an important aspect of silica exposure control.
 - 10.7.1. Employees should be encouraged to wash their hands before eating.
 - 10.7.2. Where possible, employees should be encouraged to shower at the end of the work day.
 - 10.7.3. Employees should be encouraged to change their clothes before going home and bag their clothes for carrying.

11. Medical Surveillance

- 11.1. Employees who will potentially wear a respirator for protection against exposure to silica based products shall be enrolled in the Medical Surveillance Program consisting of:
 - 11.1.1. Baseline medical examination including a chest X-ray.
 - 11.1.2. Information provided to the PLHCP by the employee.
 - 11.1.3. The PLHCP will perform the medical surveillance and provide a written medical report to the affected employee within 30 days of examining the employee. The PLHP will also provide a written medical opinion to NIU Environmental Health & Safety Dept. (attention Medical Surveillance) within 30 days.
 - 11.1.4. A test for Tuberculosis.
- 11.2. Employees enrolled in the medical surveillance program shall be examined every three (3) years to track any changes as a result to exposure to silica dust.

- 11.3. Medical clearance reports are maintained by EH&S and with the healthcare provider. The employee has a right to receive a copy. The medical clearance report will be e-mailed directly to the employee.
- 11.4. Medical reports received by EH&S will be maintained for the duration of the worker's employment plus thirty (30) years and secured to maintain confidentiality.
- 11.5. NIU shall make the employee's medical records available for examination and copying to the employee or a representative with specific written consent from the employee.

12. Training

- 12.1. Hazard Communication training is required for all affected employees and should be conducted initially upon hiring. Additional information can be found at: <https://www.niu.edu/ehs/training/index.shtml>
- 12.2. Silica awareness training is available through EH&S and must be offered to affected employees prior to working with silica and annually thereafter.
- 12.2.1. Silica awareness training should include the following:
- Information about the potential health effects and symptoms of exposure to respirable silica;
 - Safety data sheets for silica, quartz, and applicable products containing silica;
 - The purpose and set up of regulated areas to mark the boundaries of work areas containing silica dust;
 - The use of engineering controls, work practices, good housekeeping and PPE to control exposure to silica;
 - Use and care of PPE;
 - Expected exposures to silica dust;
 - Exposure monitoring process;
 - Medical surveillance process;
 - Specific tasks in the workplace that could result in exposure to silica;
 - Discussion on Competent Person as noted in this Plan;
 - A quiz and/or demonstration of understanding of this plan.

13. Signage

- 13.1. In areas where exposure to silica dust may exceed the PEL the following or similar type of signage must be in place to warn employees of this hazard. CFR 1910.1053(j)(2) requires the following on any signage:

DANGER
RESPIRABLE CRYSTALLINE SILICA
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
WEAR RESPIRATORY PROTECTION IN THIS AREA
AUTHORIZED PERSONNEL ONLY

14. Work Area

- 14.1. Work areas shall be restricted, when necessary, to minimize the number of employees exposed to respirable silica and their level of exposure. Work areas shall be demarcated by barrier tape and engineering controls such as wet methods or local exhaust ventilation shall be implemented to control/minimize the spread of dust.

Table 1 Reference

Table 1 is a flexible compliance option contained as referenced from OSHA's Silica Rule that effectively protects workers from silica exposures. It identifies 18 common construction tasks that generate high exposures to respirable crystalline silica and for each task, specifies engineering controls, work practices, and respiratory protection that effectively protect workers.

Employers who fully and properly implement the engineering controls, work practices, and respiratory protection specified for a task on Table 1 are not required to measure respirable crystalline silica exposures to verify that levels are at or below the PEL for workers engaged in the tasks listed therein.

**TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS
WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA**

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(i) Stationary masonry saws	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer’s instructions to minimize dust emissions.</p>	None	None
(ii) Handheld power saws (any blade diameter)	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer’s instructions to minimize dust emissions.</p> <ul style="list-style-type: none"> – When used outdoors. – When used indoors or in an enclosed area. 	None APF 10	APF 10 APF 10
(iii) Handheld power saws for cutting fiber cement board (with blade diameter of 8 inches or less)	<p>For tasks performed outdoors only:</p> <p>Use saw equipped with commercially available dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.</p>		

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum APF	
		≤ 4 hours /shift	> 4 hours /shift
(iv) Walk-behind saws	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>– When used outdoors.</p> <p>– When used indoors or in an enclosed area.</p>	<p>None</p> <p>APF 10</p>	<p>None</p> <p>APF 10</p>
(v) Drivable saws	<p>For tasks performed outdoors only:</p> <p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p>	<p>None</p>	<p>None</p>
(vi) Rig-mounted core saws or drills	<p>Use tool equipped with integrated water delivery system that supplies water to cutting surface.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p>	<p>None</p>	<p>None</p>

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum APF	
		≤ 4 hours /shift	> 4 hours /shift
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	<p>Use drill equipped with commercially available shroud or cowling with dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>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.</p> <p>Use a HEPA-filtered vacuum when cleaning holes.</p>	None	None
(viii) Dowel drilling rigs for concrete	<p>For tasks performed outdoors only:</p> <p>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.</p> <p>Use a HEPA-filtered vacuum when cleaning holes.</p>	APF 10	APF 10

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum APF	
		≤ 4 hours /shift	> 4 hours /shift
(ix) 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
	<p>OR</p> <p>Operate from within an enclosed cab and use water for dust suppression on drill bit.</p>	None	None
(x) Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	None	APF 10
	<p>– When used outdoors.</p> <p>– When used indoors or in an enclosed area.</p> <p>OR</p> <p>Use tool equipped with commercially available shroud and dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>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.</p> <p>– When used outdoors.</p> <p>– When used indoors or in an enclosed area.</p>	APF 10	APF 10
		None APF 10	APF 10 APF 10

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum APF	
		≤ 4 hours /shift	> 4 hours /shift
(xi) Handheld grinders for mortar removal (i.e., tuckpointing)	<p>Use grinder equipped with commercially available shroud and dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.</p>	APF 10	APF 25
(xii) Handheld grinders for uses other than mortar removal	<p>For tasks performed outdoors only:</p> <p>Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface:</p> <p>And: Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Or: Use grinder equipped with commercially available shroud and dust collection system.</p> <p>And: Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p>	None	None

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum APF	
		≤ 4 hours /shift	> 4 hours /shift
	<p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.</p> <ul style="list-style-type: none"> – When used outdoors. – When used indoors or in an enclosed area. 	None None	None APF 10
(xiii) Walk-behind milling machines and floor grinders	<p>Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface.</p> <p>And: Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Or: Use machine equipped with dust collection system recommended by the manufacturer.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.</p> <p>When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.</p>	None None	None None

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum APF	
		≤ 4 hours /shift	> 4 hours /shift
(xiv) Small drivable milling machines (less than half-lane)	<p>Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant.</p> <p>Operate and maintain machine to minimize dust emissions.</p>	None	None
(xv) Large drivable milling machines (half-lane and larger)	<p>For cuts of any depth on asphalt only:</p> <p>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.</p> <p>Operate and maintain machine to minimize dust emissions.</p>	None	None
	<p>For cuts of four inches in depth or less on any substrate:</p> <p>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.</p> <p>And:</p> <p>Operate and maintain machine to minimize dust emissions.</p>	None	None
	<p>Or</p> <p>Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant.</p> <p>Operate and maintain machine to minimize dust emissions.</p>	None	None

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum APF	
		≤ 4 hours /shift	> 4 hours /shift
(xvi) Crushing machines	<p>Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points).</p> <p>Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.</p>	None	None
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	<p>Operate equipment from within an enclosed cab.</p> <p>When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.</p>	None	None
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica containing materials	<p>Apply water and/or dust suppressants as necessary to minimize dust emissions.</p> <p>OR</p> <p>When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.</p>	None	None