SITE SPECIFIC SAFETY PLAN

Prepared for:

Project:

Key Personnel:

Contract Safety Director:

Merritt Contracting Project Manager:

Merritt Contracting Superintendent:

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PROJECT:

HEALTH AND SAFETY POLICY

We, at Merritt Contracting, maintain an effective safety program to guard against accidents, injuries and illnesses. All members of management and supervision are charged with the responsibility of preventing incidents or conditions that could lead to occupational injuries or illness and for developing the proper attitude of employees toward accident prevention, instructing employees in the recognition of hazards and ensuring that all operations are performed with the utmost regard for safety.

SUMMARY

This site hazard assessment survey was conducted to assess the possible safety hazards associated with the This site assessment examines the pre-work field conditions, scheduling of construction phase activities, and safe work practice protocols for mitigating the hazards that can be encountered relative to standard safe work practice and site-specific safety issues. The pre-work hazard analysis concluded that standard and project safety operating procedures and methods would be feasible for the type of work activity planned.

SCOPE

The policies and procedures of this site-specific plan are implemented and enforced during all construction activities performed by Merritt Contracting. All potentially exposed employees have been trained on the special considerations and application of this plan. If signs of inefficiencies are found retraining will be completed.

PURPOSE

The purpose of this site-specific plan is to adapt standard hazard abatement techniques to the specific conditions encountered during field construction activities.

RESPONSIBILITY

Superintendent, or a designee, will have primary responsibility and is authorized to enforce the procedures of this program. Employees have a responsibility to comply with the conditions of work pertaining to safety as delineated by this site-specific plan. In addition, all employees will comply with all client policies and procedures that are not specifically addressed in this plan.

GENERAL SITE SAFETY REQUIREMENTS

- All materials and debris will be secured ensuring they will not present a drop hazard to persons or structures at elevations below the work area.
- Materials will not be stored in front of, or block access or the egress of stairways and building exits.
- All personnel will wear safety glasses, hard hats, safety-toed shoes, gloves, long pants, and 4" sleeves.
- Appropriate fire protection will be supplied in applicable areas.
- All personnel will use appropriate safety equipment as defined by job responsibility and weather conditions.
- Fire protection will be supplied as needed per work condition, environment, and hazards present.
- All accidents will be reported immediately to the foreman and all site-specific personnel with required documentation.
- All temporary cord supplied power will be protected by means of a GFCI located at the power source.
- All holes larger than two inches in diameter shall be covered with 3/4-inch plywood, secured to prevent movement, and clearly marked DANGER HOLE or like in orange spray paint when not attended.
- First aid kit will be located on-site in the foremen’s work truck or in Connex/trailer at all times.
- All work performed 6' above the working surface requires appropriate fall protection.
- Site safety inspections will be conducted on a regular schedule.
- Only authorized employees will be permitted to use suspension scaffolding. These employees must attend a site-specific scaffold training course.

DRUG FREE WORKPLACE

Merritt Contracting requires that all employees abide by the company's drug-free workplace policy. Merritt Contracting has adopted the Coalition of Construction Safety (CCS) Drug Free Workplace Policy and requires testing for all newly hired employees. Random, reasonable suspicion and post-incident drug & alcohol screens are also performed when necessary.

SAFETY VIOLATION & DISCIPLINARY ACTION

The primary objective of any safety program is to help to provide a safe work environment for all employees. Foremen or supervisors are required to issue appropriate specific safety instructions to all employees prior to assigning them work. Foremen or supervisors are responsible for coordinating work with other supervisors in the work area to ensure that all work can be accomplished safely. Each employee is individually responsible for complying with the provisions of the safety program, in addition to those safety instructions issued by the employees foreman or supervisor, either verbally or in writing. If safety policies and procedures are violated, disciplinary actions will be implemented.

RETURN TO WORK/LIGHT DUTY

In the event of an occupational injury that does not prevent an employee from returning to work with physical restrictions, the company will make a reasonable effort to provide the injured with a position with physical requirements that are consistent with the doctor's recommendations.

WORK AREA HAZARD ASSESSMENT

Work area hazard assessment procedures provide a mechanism through which the information needed to anticipate, recognize, identify, and evaluate work area hazards can be obtained. The information thus gained is utilized in the design and implementation of employee safety and environmental protection programs. The task hazard analysis and safety plan form will be updated as necessary. **(See Task Hazard Analysis & Safety Plan Appendix)**

SAFETY TRAINING

The company regards its employees as vital parts of the organization. As such, the company accepts the responsibility of providing a workplace where the employee can do his job without injury to themselves or others. Safety Resources, Superintendents, and Foreman will schedule & deliver safety awareness training for employees, encourage safety awareness, get employees actively involved in safety, motivate employees to follow proper safety procedures, eliminate safety hazards, and introduce employees to new safety rules, practices and equipment. The instructional curriculum includes the company and site safety policies, rules, and procedures, new hire orientation, daily or weekly field safety meetings, formal classroom safety training, and annual company safety seminars. All employees new to this project will attend General Contractor's Safety Orientation, along with Merritt Contracting Project Orientation. All training is documented and kept on file in the trailer and copies will be sent to the corporate office. All site personnel and new hires will be trained on this plan. **(See Safety training sign-in sheet Appendix)**

HAZARD COMMUNICATION

A formalized Hazard Communication Program is in place to ensure the safety and health of all employees during the use, handling, and transfer of potentially hazardous chemicals in which exposure could cause illness and injury. **(The entire program can be found in the Corporate Safety Manual)**

EMERGENCY ACTION PLAN

The Merritt Contracting emergency response plan designates safe assembly areas, emergency coordinators, and procedures to follow in emergency situations. Compliance with this emergency response plan is mandatory and is applicable to all employees. **(See Site-specific Emergency Action Plan Appendix)**

PERSONAL PROTECTIVE EQUIPMENT

To ensure the use of appropriate company approved personal protective equipment wherever and whenever there is a potential for exposure, either real or assumed, to hazardous working conditions, or where a hazardous condition exists and a need is indicated for using such equipment to adequately reduce the hazard. **(See Site-specific personal protective equipment is identified in the General Safety Requirements & Task Hazard Analysis & Safety Appendix.)**

MATERIAL STORAGE & HANDLING

Both temporary and permanent storage should be neat and orderly. Proper storage and material handling procedures and methods will provide for conservation of materials and equipment, increase productivity by providing a smooth flow of materials as needed, and reduce the number of accidents and injuries usually associated with this function. Special precautions shall be taken to prevent hernias and back injuries. Material Handling & Storage questions shall be directed to the Foreman or Superintendent.

HOUSEKEEPING AND SANITATION

Good housekeeping is an important element of accident prevention and must be a primary concern to all superintendents and foremen. Good housekeeping will be planned at the beginning of a job and will be carefully supervised and followed through to the final cleanup. A clean and orderly workplace will not only contribute greatly to the prevention of accidents and injuries but will also lend itself to the proper utilization of available facility space.

ADDITIONAL CONSIDERATIONS & RECORDS MAINTENANCE

- The Site-Specific Safety Plan shall be maintained on site.
- Documentation of training shall be kept at the corporate office.
- The Site-Specific Safety Plan shall be continuously updated as conditions and activities change.

APPENDIX A1
INITIAL TASK HAZARD ANALYSIS

THIS ANALYSIS AND PLAN IS SPECIFIC FOR THE FOLLOWING:

Project: **Date:**

Site Required Personal Protective Equipment 100%: Hard hats, Safety Shoes, Gloves and Safety Glasses

Work Operation: **Person Preparing:** **Safety:** l

Superintendent: **Phone Number**: **Foreman:**

INSTRUCTIONS: COMPLETE AND UPDATE THE FOLLOWING QUESTIONNAIRE WITH SPECIFIC INFORMATION REGARDING PREFORMED WORK THROUGHOUT THE SCOPE AND DURATION OF THIS JOB. REVIEW IT CONTINUOUSLY. LOOK FOR CHANGING CONDITIONS. UPDATED AS NEEDED.

SAFETY HAZARD ANALYSIS

WORK DESCRIPTION	SPECIFIC SAFETY HAZARD	SPECIFIC SAFETY MEASURE (NECESSARY PROCEDURES, RULES AND/OR EQUIPMENT)
Site Preparation	a) Material Handling b) Fall Protection c) Potential Debris d) Housekeeping e) Potential Fire Hazard f) Electrical Hazard g) General	A) Use proper material handling and lifting techniques B) See fall protection plan C) Safety glasses always D) Continuous housekeeping E) Maintain a 20-pound ABC fire extinguisher in work areas. F) Ensure all electrical power is protected by GFCI. G) A preconstruction meeting will be held prior to the erection.
General Site Safety	a) Power Tools b) Heavy Lifting c) Electrical Power d) Personal Protective Equipment	A) All Power tools will be inspected before each use. If any abnormalities are found, including any guards missing the tool will be tagged and placed out of service until proper repairs can be made. All power tools will either be equipped with a grounding prong or will be double insulated. All electrical cord power tools will be plugged into a GFCI protected extension cord. B) No employee will be expected to lift any heavy object without the help of assistance. If more than two employees cannot lift a piece of material, then mechanical assistance will be provided. C) All power will be GFCI protected. All GFCI's will be tested daily. If a bad GFCI Is found, it will be taken off site immediately. D) All employees will be required to wear all PPE that is required to perform specific job tasks, including hearing protection, cut resistant or chemical gloves, face shields, In addition, work boots, safety glasses, gloves, high visibility vests and hard hats are required for this project.
Material Handling	a) Potential body strains b) Slip, trip c) Crane or lift Signaling d) Clear Path e) Cuts/Lacerations f) Rigging Failure	A) Employees will use proper lifting techniques and material handling equipment when available to prevent body strains. Loads over 75lbs, to be hand carried, will be split into lesser weight to facilitate safe handling or assistance will be provided. B) Continuous housekeeping. C) Employees providing hand signals or radio communication with crane or lift operator will coordinate proper signals with operator prior to shift. D) A clear path from lift area to final set location must be established prior to beginning any lifting operation. E) All employees will be required to wear cut resistant gloves for all material handling. The only exemption for cut resistant gloves are instances where "wet" work or chemical handling procedures will require different hand protection. f) All rigging will be inspected prior to use. Personnel performing rigging operations will be qualified and trained. Lifts planning will performed prior to hoisting any loads. **Vestil system deployed on Lull forks**.
Unloading Trucks	a) Striking workers with loose objects b) Unstable loads c) Staging materials creating falling material	A) Locate barrier where truck is to be unloaded prior to removing chains. B) Loosen all binders prior to removing chains (at the level to be unloaded) to ensure the load is stable. Workers will not lift any bundles by strapping. No cables or hooks will be attached to web members of open web joists. C) Materials will be stacked safely. All materials will be braced, cribbed, or tied to prevent rollover and unbinding.
Forklift Lift / Aerial Lift Use	a) Daily inspections b) Qualified Operators c) Fire Prevention d) Area protection	A) All equipment will be inspected daily, and a daily inspection form will be kept on file. B) All operators will be qualified and trained in the safe operation of the specified equipment. C) A fire extinguisher shall be located on each forklift. D) When feasible, areas around the equipment will be barricaded or marked with caution tape to prevent unauthorized access.

Working on Structural Framing on Elevated Locations	a) Electrical hazards b) Fall protection c) Competent person	A) All power cords will meet the requirements of Merritt Contracting AEGCP. B) Workers exposed to falls greater than 15' shall utilize fall protection such as lanyards or harnesses. Lanyards shall be secured to members that can support a minimum of 5,000 lbs. Beam wraps and beamers will also be used. Workers will straddle the member rather than walk the top flange, and workers will never ride loads on the crane. Guardrails will be installed as soon as possible around leading edges. Openings in floors will be covered, secured and marked. C) Competent person will be appointed for fall protection systems. All work will occur under the supervision of a competent person.
Crane Use	a) Operation b) Improper Rigging/Signaling c) Mechanical Failure d) Overhead Hazards e) Crane overloading f) Load Stability g) Unloading trucks	A) Crane operator will be qualified for the specific equipment utilized. Safe operating practices will be followed B) All rigging for the crane and loads will be performed by a qualified rigger and signals only provided by a qualified signal person. C) Crane will be inspected daily prior to use. Monthly and annual inspections will be kept on file for documentation purposes. Any mechanical deficiencies will be cause to remove the crane from service. All repairs will be performed by a qualified mechanic appointed by the crane owner. D) Loads will not be lifted overhead of personnel. All employees in the lift area will only be those necessary for the installation of the materials. Crane operator and signal person will coordinate lifts. Barricading of the lift area will take place when necessary to prevent unauthorized entry. E) Cranes will not be loaded beyond manufacturer's load chart based on set-up and load radius from base of the crane. The crane operator will verify the weights of any loads with the rigger through lift planning prior to hoisting any loads. F) Tag lines will be used for every load unless it creates a greater safety hazard. G) Loads on the trucks will be secured when unloading. Crates which are combined and separated prior to unloading will be secured to the vehicle using load straps to prevent overturning or breaking loose.
Setting Structural Members into Place	a) Pinch Points b) Striking Worker(s) c) Worker Fall Hazards d) Member Fall Hazards	A) Connectors will position themselves to allow mobility to avoid incoming pieces. B) Only one connector will give signals to the crane operator, and that person will make sure everyone is clear. C) Loads will have tag lines to guide load to connection point. D) Beams will be connected with a minimum of two bolts at each end prior to releasing hoisting line.
Bolting up Connections	a) Falling Objects	A) Impact wrenches shall have locking devices for retaining sockets. Any container shall be secured to prevent objects from falling below. When bolts or drift pins are driven out, they shall be prevented from falling.
Welding	a) Flash burns b) Fire Hazards	A) Proper PPE and clothing will be worn and checked regularly for damage or wear. Welding screens will be used, when possible, to protect other workers from direct exposure to welding operations. B) A separate worker will act as a fire watch for all welding and burning operations where combustible materials or personnel will be exposed. A charged fire extinguisher shall be located within 25 feet and in plain view of the worker when welding or burning.

NOTES: Initial hazard analysis will be updated as needed. Crews will perform their own task hazard analysis and completed the daily form prior to starting work, and regularly thereafter.

The Initial hazard analysis is intended to outline foreseeable hazards and appropriate control measures but will be updated.

APPENDIX B
PROJECT:

Training Sign-In Sheet

Instructor: _____ **Date:** _____

Topics: Job-dependent. Review for each project
Site-specific Safety Plan Requirements, Fall Protection, Emergency Action Plan, Ladder Safety & Personal Protective Equipment

Print Name:	**Signature:**

APPENDIX C – Emergency Action Plan
PROJECT:

LOCATION OF JOB:

DATE:

PERSONNEL:

Field Safety: Cell:
Superintendent: Cell:

FOR A CRITICAL INCIDENT ON SITE: Dial 911

Notify : On-Site Procedures

Notify Merritt Contracting:

ACCIDENT & INJURY REPORTING PROCEDURE: Get proper medical attention for the injured. For a first aid injury use the kit in the truck/Connex/trailer. Report all injuries and incidents to the foreman. The foreman will report to the superintendent and MCI Safety Team. The superintendent will contact The General Contractor Safety Representative immediately. The superintendent will fill out the accident & injury report.

MEDICAL FACILITY LOCATION:
Non-Emergency: **Allied Occupational Medicine 8202 Clearvista Pkwy Suite 2D Indianapolis, IN 46256**

IN AN EMERGENCY, WHAT ARE THE DESIGNATED SAFE ASSEMBLY AREAS:

Evacuation: **Morning huddle location**

Inside (severe weather): Employees will follow onsite instruction

LIST THE SITE FORMS OF EMERGENCY WARNING: Air horn – Three Long Blast for Emergency Notification

LIST OF THE EMERGENCY COMMUNICATION SYSTEMS:
Word of Mouth, Cell phones, Radios and/or Site Established Communication Systems

LIST ANY OTHER SITE-SPECIFIC PROCEDURES AND/OR CHANGES TO THIS PLAN.

ALL PERSONNEL MUST BE TRAINED ON THIS PLAN AND THIS PLAN MUST BE POSTED ON-SITE WHEN CONSTRUCTION ACTIVITIES ARE BEING PERFORMED.

APPENDIX E – Limitation of Liability

Limitation of Liability:

Merritt Contracting acknowledges that conditions of the workplace can and do change on a constant basis. Merritt Contracting agrees to use its best efforts to establish and promote compliance with applicable laws and regulations for Merritt Contracting 's employees. Additionally, Merritt Contracting does not assume responsibility for the safety of other employers' employees when Merritt Contracting is present or absent from any project(s).

All materials used by Merritt Contracting are the sole property of Merritt Contracting, including, but not limited to: fall protection systems, equipment, and/or any other roofing or sheet-metal materials.

When other employers' employees use Merritt Contracting 's fall protection systems (e.g. - warning lines, guardrail systems, etc.), while Merritt Contracting employees are not present, or without previous knowledge of Merritt Contracting 's completion of the "Worker Information For Liability Release", Merritt Contracting will not be held liable for other employers' employee(s) local, state and/or federal compliance, potential injuries or illnesses.

Although Merritt Contracting does understand that there will be instances in which other employers will be actively working near Merritt Contracting 's work area(s), other employers and/or employees shall effectively mitigate any potential injuries, illnesses, and/or compliance issue(s) pertinent to their scope(s) of work.

Appendix K - SILICA EXPOSURE CONTROL PLAN

Project Name: **Date:**

Competent Person:

Scope of Work Covered by this Plan:

Project Exposures and Control Methods

☐ Stationary Saw Estimated Time of Exposure _____ Respiratory Protection Required? ☐ Yes ☐ No	☐ Integrated Water Delivery ☐ Other Control Methods _____ _____
☐ Drilling Estimated Time of Exposure _____ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Other Control Methods _____ _____
☐ Hand-held Chipping / Jackhammer Estimated Time of Exposure _____ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Other Control Methods _____ _____
☐ Hand-held Gas Saw Estimated Time of Exposure _____ Respiratory Protection Required? ☐ Yes **Exposure Assessments In Progress**	☐ HEPA Vacuum Systems ☐ Integrated Water Delivery ☐ Other Control Methods _____ _____
☐ Hand-held Grinder Estimated Time of Exposure _____ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Integrated Water Delivery ☐ Other Control Methods _____ _____
☐ Installing/Removing Board (Hardboard, Insulation, etc.) Estimated Time of Exposure _____ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Other Control Methods _____ _____
☐ Gravel/Rock Removal Estimated Time of Exposure _____ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Other Control Methods _____ _____

☐ Mobile Roof Cutter Estimated Time of Exposure ____________ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Integrated Water Delivery ☐ Other Control Methods ____________ ____________
☐ Cutting (Hardboard, Insulation, Wood, etc.) Estimated Time of Exposure ____________ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Integrated Water Delivery ☐ Other Control Methods ____________ ____________
☐ Installing/Removing Asphalt Roofing Product (i.e. built-up, polymer-modified bitumen and shingle roof systems) Estimated Time of Exposure ____________ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Integrated Water Delivery ☐ Other Control Methods ____________ ____________
☐ Housekeeping Estimated Time of Exposure ____________ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Other Control Methods ____________ ____________
☐ ____________ Estimated Time of Exposure ____________ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Integrated Water Delivery ☐ Other Control Methods ____________ ____________
☐ ____________ Estimated Time of Exposure ____________ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Integrated Water Delivery ☐ Other Control Methods ____________ ____________
☐ ____________ Estimated Time of Exposure ____________ Respiratory Protection Required? ☐ Yes ☐ No	☐ HEPA Vacuum Systems ☐ Continuous Water Delivery ☐ Integrated Water Delivery ☐ Other Control Methods ____________ ____________

*Shall be continuously updated, as needed.

Alternative Methods and Justifications
When alternative dust control methods are utilized, employees will be required to wear respiratory protection (minimum APF 10) until determinations or further sampling is conducted which will detail the specific exposure assessment.

Area Control
Methods to be used to restrict access into areas where unintended exposure may occur will include:

(Signage, barricades, enclosures, spotters, work when area is cleared of other contractors to reduce risk of exposure.)

All employees working onsite will confirm their understanding of this plan and necessary requirements to maintain compliance with its provisions.

Competent Person: ·

Employees

APPENDIX L - Silica Exposure Control Program

Applicability

This Written Exposure Control Plan (Plan) applies to **Merritt Contracting** personnel who are potentially exposed to airborne concentrations of respirable crystalline silica (silica) because of their work activities or proximity to the work locations where airborne silica is being emitted. This Plan also applies to **Merritt Contracting** superintendents, foremen, or safety personnel who may be responsible for overseeing a subcontractor's operations that have the potential to expose personnel to airborne concentrations of silica at or above regulatory and industry action levels and exposure limits.

Scope

This Plan describes the hazards associated with projects involving potential exposure to airborne concentrations of silica and the issues to be addressed during these projects. These projects include, but are not limited to:

- Use of stationary, or hand-held, masonry saws used to cut concrete, tile, concrete masonry block, pavers, or any other product containing quartz.
- Grinding of mortar joints or masonry for counterflashing or tuckpointing with powered tools equipped with abrasive blades.
- Removal and installation of asphalt roofing products such as built-up, polymer-modified bitumen and shingle roof systems.
- Removal or installation of gravel surfacing material on roof systems.
- Drilling or screwing into concrete, masonry or mortar for installation of termination bars, fasteners or other accessories.
- All housekeeping operations associated with the activities described above.

Merritt Contracting employees who work in proximity to silica-related operations must be aware of safe work practices and take all necessary precautions associated with avoiding and minimizing airborne silica exposure.

Regulatory Review

Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1153: Respirable Crystalline Silica (Construction Industry) and 29 CFR 1910.1053: Respirable Crystalline Silica (General Industry), contain regulatory requirements specific to respirable crystalline silica. This Written Exposure Control Plan is developed in accordance with the requirements in 29 CFR 1926.1153(g).

Project Planning

Training Requirements

Merritt Contracting employees who anticipate working on projects where they could be exposed to airborne silica will be provided training in silica hazards in accordance with the **Merritt Contracting** program established to comply with the hazard communication standard (29 CFR 1910.1200). Each employee will have access to labels on containers of crystalline silica and safety data sheets and be provided information on the health hazards of silica including cancer, lung effects, immune system effects, and kidney effects. In addition, **Merritt Contracting** employees will be provided training and information regarding specific activities identified in this Plan that could result in airborne silica exposure, and the specific engineering controls, work practices and respiratory protection requirements to mitigate the potential airborne silica exposures. This training will provide a discussion of silica hazards, initial exposure determination either by complying with 29 CFR 1926.1153 Table 1 (Appendix A) requirements or air monitoring, specific engineering and work practice control measures, personal protective equipment (PPE), and medical surveillance requirements. The training will also identify the **Merritt Contracting** competent person for silica exposure identification and determination of control requirements. All **Merritt Contracting** employees will be provided with access to a copy of 29 CFR 1910.1153 and be trained on the contents of 29 CFR 1926.1153.

Medical Surveillance Requirements

Merritt Contracting shall institute medical surveillance for any employees required by this Plan to where a respirator 30 or more days per year. Initial medical surveillance consists of medical and work history with emphasis on: past, present, and anticipated exposure to silica, dust and other agents affecting the respiratory system; any history of respiratory system dysfunction, including signs and symptoms of respiratory disease (e.g., shortness of breath, cough, wheezing); history of tuberculosis; and smoking status and history; a physical examination with emphasis on the respiratory system; chest X-ray, interpreted and classified by a NIOSH-certified B Reader; a pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) and FEV1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH approved spirometry course; testing for latent tuberculosis infection; and any other tests deemed appropriate by the Occupational Medicine Provider. Subcontractors are responsible for implementing a medical surveillance program for their employees.

Competent Person Requirements

Merritt Contracting shall identify a competent person to inspect and oversee all activities with potential airborne silica exposure. Subcontractors working on projects within the scope of this Program shall appoint a competent person (Foreman) capable of executing the duties described herein. The competent person must have training in the inspection of work areas and equipment and in the determination of safe working conditions. This person shall have a working knowledge of the 1926.1153 standards, shall be capable of identifying airborne silica hazards, shall determine the need for initial and additional exposure monitoring, shall recommend and implement engineering and work practice controls, shall establish levels of PPE, and shall have the authority to take action to eliminate hazards and correct incidences of noncompliance.

Planning Activities

Projects where anticipated activities involve concrete cutting, grinding, sandblasting, drilling, coring, other abrasive operations, rock removal, or other similar operations are treated as potential sources for airborne silica exposure. Additionally, existing structures and materials such as sheetrock, any painted surfaces with low volatile organic compounds, tile, brick, or some insulation products may contain silica. Likewise, new material installation may involve silica-containing mortar, paints, or insulation. Where process knowledge indicates the presence of silica, **Merritt Contracting** will either implement all controls required by 1926.1153 Table 1- Exposure Control Methods for Selected Construction Operations or conduct an initial determination in accordance with 29 CFR 1926.1153(d)(2).

Project Execution

Safe Work Practices

The requirements of this section are to be followed by **Merritt Contracting** employees, who may be exposed to airborne concentrations of silica at or above the regulatory limits.

Exposure Assessment

Merritt Contracting will either comply with and implement all controls required by 1926.1153 Table 1-Exposure Control Methods for Selected Construction Operations or conduct an initial determination in accordance with 29 CFR 1926.1153(d)(2).

- Use of hand-held gas saws and/or stationary tile (tub) saws used to cut tiles or any other product containing quartz.
    - Employees will follow guidelines outlined in table 1, utilizing a water delivery system to control airborne dust.
- Free standing drills (including impact and rotary hammer drills) are used to penetrate concrete, concrete masonry block, or any other structural component or product containing quartz.

- Employees will follow guidelines outlined in table 1, utilizing a HEPA vacuum system and shroud to capture airborne dust.
- Employees engaged in drilling activities for less than 15 minutes will not be required to utilize the above-mentioned systems due to the limited and minimal exposure of the dust generation. A NIOSHA study has indicated limited exposure to dust from small drilling operations to be well below the action level for shortened durations. (NIOSH. 1996. Preventing silicosis and deaths in construction workers. U.S. Dept. of Health and Human Services (National Institute for Occupational Safety and Health, Publication No. 96-112). Cincinnati, OH.)
- Some employees in the construction sector perform tasks involving occasional, brief exposures to respirable crystalline silica that are incidental to their primary work. These workers include carpenters, plumbers, and electricians who occasionally drill holes in concrete or masonry or perform other tasks that involve exposure to respirable crystalline silica. Where employees perform tasks that involve exposure to respirable crystalline silica for a very short period, exposures for many tasks will be below 25µg/m^3 as an 8-hour TWA. For example, for hole drillers using hand-held drills, if the duration of exposure is 15 minutes or less, the 8-hour TWA exposure can reasonably be anticipated to remain under the 25µg/m^3 threshold (assuming no exposure for the remainder of the shift), and the standard would not apply.
- Jackhammers and handheld powered chipping tools are used to demolish or modify concrete, concrete masonry block, or any other structural component or product containing quartz.
- Employees will follow guidelines outlined in table 1, utilizing a HEPA vacuum system and shroud to capture airborne dust or a continuous stream of spray or water at the point of impact.
- Handheld grinders or cut-off wheels used for mortar removal or cutting/grinding of concrete, concrete masonry block, or any other structural component or product containing quartz.
- Employees will follow guidelines outlined in table 1, utilizing a HEPA vacuum system and shroud to capture airborne dust or an integrated water delivery system.
- Walk-behind milling machines, floor grinders or bead blasters (or roof cutters) used for surfacing activities on roofs or any other product containing quartz.
- Employees will follow guidelines outlined in table 1, utilizing a HEPA vacuum system and shroud to capture airborne dust or an integrated water delivery system.
- When the HEPA vacuum system is utilized, dust will be removed from the floor in between passes using a HEPA vacuum system.
- All housekeeping, or similar, operations associated with the activities described above.
- Employees will utilize HEPA filter vacuum systems to collect silica dust or utilize an integrated water delivery system which has been generated during any of the above listed activities.

Communication of Hazards

- Each employee shall be provided training and demonstrate knowledge and understanding of the following:
    - Health hazards associated with exposure to respirable crystalline silica
    - Specific tasks that could result in exposure to respirable crystalline silica
    - Specific measures that are required to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices, and required use of respiratory protection
    - The contents of the 29 CFR 1926.1153
    - The identity of the competent person
    - Purpose and description of the medical surveillance program
- A written compliance program shall be made available to all affected employees.
- In addition, notification to owners, contractors, and other personnel working in the area shall be made.

Control Methods

- Engineering and work practice controls, including administrative controls, shall be implemented to reduce and maintain employee exposure to silica at or below the PEL, to the extent that such controls are feasible.
- Where all feasible engineering and work practice controls that can be instituted are not sufficient to reduce employee exposure to or below the PEL, such controls shall be used, nonetheless, to reduce employee exposure to the lowest feasible level (and in conjunction with respiratory protection).
- Respiratory protection shall be selected based on guidance in 1926.1153 Table 1 or based on a Certified Industrial Hygienist's or competent person's assessment of the potential airborne exposure that may be created by the means and methods of work (high energy operations with high airborne dust generation or low energy operations with low dust generation).
- When using mechanical ventilation to control exposure, regularly evaluate the system's ability to effectively control exposure.
- If administrative controls are used to limit exposure, establish and implement a job rotation schedule that includes employee identification as well as the duration and exposure levels at each job or workstation where each affected employee is located.
- A written compliance program shall be established and implemented prior to the start of operations within the scope of this written compliance plan. The written program shall outline the plans for maintaining employee exposure below the PEL.
- Maintain all surfaces as free as possible from accumulations of silica. Select methods for cleaning surfaces and floors that minimize the likelihood of silica becoming airborne (such as using a HEPA vacuum).
- If vacuuming is the method selected, specialized vacuums with HEPA filtration are required. Methods to use and empty vacuums in a manner that minimizes the reentry of silica into the workplace shall be described and used. Use of household vacuums with HEPA filters are not allowed at any time for the collection of dust or debris that contains silica.
- Never use compressed air to remove silica from any surface unless it is used in conjunction with a ventilation system designed to capture the airborne dust created while using the compressed air.
- Employees shall not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in any areas where exposure to silica is above the PEL (in other words, regulated areas).
- Do not allow employees to leave the workplace wearing any protective clothing or equipment that is required to be worn during their work shift without HEPA vacuum removal of dust.
- Where feasible, install shower facilities and require employees who work in regulated areas to shower at the end of their work shift. Also provide an adequate supply of cleaning agents and clean towels.
- Provide hand washing facilities for use by employees working in regulated areas. Furthermore, require employees to wash their hands and face at the end of the work shift and prior to eating or entering eating facilities, drinking, smoking, or applying cosmetics.
- Eating facilities or areas shall be provided for employees working in regulated areas. These facilities shall be maintained free of silica contamination and shall be readily accessible to those employees.

Personal Protective Equipment (PPE)

Respiratory protection must be used for the following conditions:

- During periods when employee exposure to airborne silica exceeds the PEL.
- For work operations where engineering and work-practice controls are not sufficient to reduce employee exposure to or below the PEL.
- During periods when an employee requests a respirator.
- During periods when respirators are required to provide interim protection while conducting initial exposure assessments.
- Powered air-purifying respirators (PAPR) shall be provided to employees who request such a respirator to use where it will provide adequate protection.
- Employees shall be provided, at no cost, protective work clothing and equipment including cotton coveralls or similar full-body clothing, gloves, hats, shoes or disposable shoe coverlets, face shields, vented goggles, or other appropriate PPE.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHOD

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	**Use saw equipped with integrated water delivery system that continuously feeds water to the blade.**	None	None
(ii) Handheld power saws (any blade diameter)	**Use saw equipped with integrated water delivery system that continuously feeds water to the blade.** – 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	**For tasks performed outdoors only:** **Use saw equipped with commercially available dust collection system.**	None	None
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	**Use drill equipped with commercially available shroud or cowling with dust collection system.** **Use a HEPA-filtered vacuum when cleaning holes.**	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**. – When used outdoors. – When used indoors or in an enclosed area. OR **Use tool equipped with commercially available shroud and dust collection system.** – When used outdoors. – When used indoors or in an enclosed area.	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10
(xi) Handheld grinders for mortar removal (i.e., tuckpointing)	**Use grinder equipped with commercially available shroud and dust collection system.** Dust collectors must provide 25 cubic feet per minute (cfm) or greater airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 25
(xii) Handheld grinders for uses other than mortar removal	**For tasks performed outdoors only:** **Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface.** **OR** **Use grinder equipped with commercially available shroud and dust collection system.** – When used outdoors. – When used indoors or in an enclosed area.	None None None	None None APF 10
(xiii) Walk-behind milling machines and floor grinders	**Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface.** OR **Use machine equipped with dust collection system recommended by the manufacturer.**	None None	None None