

	District Five of Lexington and Richland Counties Invitation for Bid Amendment One	Solicitation #	2026-024
		Date Amendment Issued	February 20, 2026
		Procurement Official	Lauren Bové, CPPO, CPPB
		Phone	(803) 476-8182
		E-Mail Address	D5bids@lexrich5.org

DESCRIPTION	Rubber Gym Flooring Removal at CrossRoads Intermediate School and Seven Oaks Elementary School
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The Term "Offer" Means Your "Bid" or "Proposal"

SUBMIT OFFER BY	March 3, 2026 @11:00am
QUESTIONS MUST BE RECEIVED BY	February 24, 2026 @ 12:00pm
NUMBER OF COPIES TO BE SUBMITTED	One (1)

Offers must be submitted in a sealed package. Solicitation number & Opening Date must appear on package exterior.

SUBMIT YOUR SEALED OFFER TO:

District Five of Lexington and Richland Counties Purchasing Office 1020 Dutch Fork Road Irmo, SC 29063

CONFERENCE TYPE: N/A DATE & TIME: As appropriate, see "Conferences - Pre-Bid/Proposal" & "Site Visit" provisions	LOCATION: N/A
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AWARD & AMENDMENTS	The award, this solicitation, and any amendments will be posted at the following web address: https://www.lexrich5.org/departments/office-of-finance/procurement/solicitations-and-awards
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You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of sixty (60) calendar days after the Opening Date.		
NAME OF OFFEROR (Full legal name of business submitting the offer)		OFFEROR'S TYPE OF ENTITY: (Check one) ☐ Sole Proprietorship ☐ Partnership ☐ Corporation (tax-exempt) ☐ Corporate entity (not tax-exempt) ☐ Government entity (federal, state, or local) ☐ Other _____ (See "Signing Your Offer" provision.)
AUTHORIZED SIGNATURE (Person signing must be authorized to submit a binding offer to enter into a contract on behalf of Offeror named above.)		
TITLE (Business title of person signing above)		
PRINTED NAME (Printed name of person signing above)	DATE SIGNED	
Instructions regarding Offeror's name: Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror above. The entity named as the Offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, <i>i.e.</i> , a separate corporation, partnership, sole proprietorship, etc.		
STATE OF INCORPORATION (If Offeror is a corporation, identify the state of Incorporation.)	TAXPAYER IDENTIFICATION NO.	

COVER PAGE

PAGE TWO
(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for Offeror's home office / principal place of business)				NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)			
				Area Code - Number - Extension Facsimile			
				E-Mail Address			
PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause) ☐ Payment Address same as Home Office Address ☐ Payment Address same as Notice Address (check only one)				ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders" and "Contract Documents" clauses)			
				Order E-Mail Address:			
				☐ Order Address same as Home Office Address ☐ Order Address same as Notice Address (check only one)			
ACKNOWLEDGMENT OF AMENDMENTS: Offerors acknowledge receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)							
Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date
DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)		10 Calendar Days (%)	20 Calendar Days (%)		30 Calendar Days (%)		_____ Calendar Days (%)
PREFERENCES - A NOTICE TO VENDORS (SEP. 2009): On June 16, 2009, the South Carolina General Assembly rewrote the law governing preferences available to in-state vendors, vendors using in-state subcontractors, and vendors selling in-state or US end products. This law appears in Section 11-35-1524 of the South Carolina Code of Laws. A summary of the new preferences is available at www.procurement.sc.gov/preferences . ALL THE PREFERENCES MUST BE CLAIMED AND ARE APPLIED BY LINE ITEM, REGARDLESS OF WHETHER AWARD IS MADE BY ITEM OR LOT. VENDORS ARE CAUTIONED TO CAREFULLY REVIEW THE STATUTE BEFORE CLAIMING ANY PREFERENCES. THE REQUIREMENTS TO QUALIFY HAVE CHANGED. IF YOU REQUEST A PREFERENCE, YOU ARE CERTIFYING THAT YOUR OFFER QUALIFIES FOR THE PREFERENCE YOU'VE CLAIMED. IMPROPERLY REQUESTING A PREFERENCE CAN HAVE SERIOUS CONSEQUENCES. [11-35-1524(E)(4)&(6)] PREFERENCES DO NOT APPLY							
PREFERENCES - ADDRESS AND PHONE OF IN-STATE OFFICE: Please provide the address and phone number for your in-state office in the space provided below. An in-state office is necessary to claim either the Resident Vendor Preference (11-35-1524(C)(1)(i)&(ii)) or the Resident Contractor Preference (11-35-1524(C)(1)(iii)). Accordingly, you must provide this information to qualify for the preference. An in-state office is not required, but can be beneficial, if you are claiming the Resident Subcontractor Preference (11-35-1524(D)). ☐ In-State Office Address same as Home Office Address ☐ In-State Office Address same as Notice Address (check only one) PREFERENCES DO NOT APPLY							

PAGE TWO

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AMENDMENT ONE

Rubber Gym Flooring Removal at CrossRoads Intermediate School and Seven Oaks Elementary School SOLICITATION # 2026-024

The Solicitation may be amended at any time prior to opening. Submitters shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on Page Two, (3) by letter, or (4) by submitting a bid that indicates in some way that the bidder received the amendment. (c) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

THE SOLICITATION IS AMENDED AS PROVIDED HEREIN. INFORMATION OR CHANGES RESULTING FROM QUESTIONS WILL BE SHOWN IN A QUESTION-AND-ANSWER FORMAT. ALL QUESTIONS RECEIVED HAVE BEEN REPRINTED BELOW. THE QUESTIONS ARE INCLUDED SOLELY TO PROVIDE A CROSS-REFERENCE TO THE POTENTIAL OFFEROR THAT SUBMITTED THE QUESTION. QUESTIONS DO NOT FORM A PART OF THE CONTRACT; THE "DISTRICT'S RESPONSE" DOES. ANY RESTATEMENT OF PART OR ALL OF AN EXISTING PROVISION OF THE SOLICITATION IN AN ANSWER DOES NOT MODIFY THE ORIGINAL PROVISION EXCEPT AS FOLLOWS: UNDERLINED TEXT IS ADDED TO THE ORIGINAL PROVISION. ~~STRICKEN TEXT~~ IS DELETED.

CHANGES:

1. The performance period is updated as follows: Work shall begin on May 23, 2026 and be substantially complete on June 12, 2026. The work shall be finally completed on June 19, 2026.
 - a. Time of Substantial Completion: Unless an extension of time is granted, work under this contract shall be substantially complete on June 12, 2026. Substantial completion is defined as the date all work is certified by the district's designee as being sufficiently complete in accordance with the contract documents, so that people may safely occupy the workspace for use of which it was intended.
 - b. Time of Final Completion: Unless an extension is granted, work under this contract shall be finally complete on June 19, 2026
2. The original solicitation document issued February 11, 2026 did not include the attachments from Crossroads Environmental. The document attached to this amendment includes this information.



SPECIFICATIONS FOR FLOORING REMOVAL

FOR

CLIENT

**School District Five of Lexington & Richland Counties
1020 Dutch Fork Road
Irmo, South Carolina 29063**

SITE LOCATION

**Seven Oaks Elementary School
2800 Ashland Road
Columbia, SC 29210**

Prepared by:

**Kay H. Horton
Crossroads Environmental, LLC
1258 Boiling Springs Road
Spartanburg, SC 29303
(864) 541-8736
CRE Project #: PD26-1180-26701**

Table of Contents

I. PREFACE/GENERAL DESCRIPTION	Page 1
II. SCOPE OF WORK	Page 1
III. CONTRACTOR INFORMATION	Page 2
A. SUBMITTALS	
B. NOTIFICATION/LICENSES	
C. CODES AND REGULATIONS	
D. PERSONNEL	
E. INSURANCE REQUIREMENTS	
F. BUILDING OWNER AND FACILITY INFORMATION	
G. SUMMARY OF TASKS	
H. STOP WORK	
I. CONTRACTOR'S USE OF PREMISES	
J. USE OF THE EXISTING BUILDING	
K. POWER & WATER	
L. WATER	
M. SANITARY FACILITIES	
N. DRIVEWAYS AND PARKING AREAS	
IV. PERSONAL PROTECTIVE EQUIPMENT	Page 10
A. WORKER PROTECTION	
B. RESPIRATORY PROTECTION	
V. PREPARATION OF THE WORK AREA(S)	Page 12
A. WORK/ISOLATION AREA	
B. HEATING, VENTILATING AND AIR CONDITIONING	
C. CRITICAL BARRIERS	
D. PRIMARY BARRIERS	
E. FILTERED FAN UNITS	
F. DECONTAMINATION	
F. TEMPORARY LIGHTING FOR FULL CONTAINMENT	
VI. PROHIBITED PRACTICES	Page 13
VII. REMOVAL PROCEDURES	Page 14
VIII. WASTE STORAGE AND DISPOSAL PROCEDURES	Page 14
IX. AIR MONITORING	Page 15
X. CONTRACTOR RELEASE CRITERIA FOR FINAL WORK AREA CLEARANCE	Page 16
XI. WASTE STORAGE AND DISPOSAL	Page 17
XII. SUBMITTALS	Page 17



**SPECIFICATIONS FOR MERCURY-CONTAINING FLOORING REMOVAL
SEVEN OAKS ELEMENTARY SCHOOL
CRE PROJECT DESIGN #: PD26-1180-26701**

I. PREFACE/GENERAL DESCRIPTION

The 8,000 square foot gymnasium of Seven Oaks Elementary School consists of rubberized flooring over a concrete slab. Sample(s) collected from the rubberized flooring confirm that the flooring contains mercury. The flooring is scheduled for removal prior to installation of Mondo flooring.

II. SCOPE OF WORK

The scope of work will include removal of all flooring down to the concrete slab and properly disposing of the flooring material. All work must be performed by a properly trained remediation contractor who specializes in removal and disposal of hazardous materials.

This specification establishes minimum environmental and industrial hygiene requirements for the removal of a mercury-containing gymnasium floor system. The intent is to ensure that removal activities are conducted in a manner that is protective of workers, prevents mercury vapor migration within the building, and allows for clearance confirmation prior to installation of a new floor system.

III. CONTRACTOR INFORMATION

A. SUBMITTALS

Project documentation including insurance certificate (see insurance requirements), training certificates, and waste shipment records must be submitted to the Building Owner's Representative. Waste shipment records must be submitted within 35 days after completion of project.

B. NOTIFICATIONS/LICENSES

Maintain current accreditations and/or licenses as required by South Carolina State or local jurisdictions for companies and employees for the removal, transportation, disposal, or other regulated activity related to the work of this contract.

Contractor is responsible for obtaining a City Business license.

C. CODES AND REGULATIONS

The contractor shall assume full responsibility and liability for compliance with applicable federal, state, and local regulations pertaining to work practices, waste handling, and worker protection.

The following are examples of regulations that apply, but should not be considered all-inclusive.

Environmental Protection Agency (EPA) Regulations:

1. Resource Conservation and Recovery Act (RCRA)
2. 40 CFR Parts 260-272, Solid and Hazardous Waste (RCRA)

Department of Transportation (DOT) Regulations:

1. Hazardous Materials Transportation Act
2. 49 CFR Parts 171 through 177

Occupational Safety and Health Administration (OSHA) Regulations:

1. Respiratory Protection- 29 CFR 1910.134
2. Hazard Communication- 29 CFR 1910.1200
3. Specifications for Accident Prevention Signs and Tags-29 CFR 1910.145
4. Air Contaminants- 29 CFR 1910.1000
5. Inorganic Mercury and its Compounds-OSHA Directive CPL 02-02-006

D. PERSONNEL

THE CONTRACTOR MUST PROVIDE AN ADEQUATE NUMBER OF QUALIFIED PERSONNEL TO MEET THE SCHEDULE REQUIREMENTS OF THE PROJECT.

GENERAL SUPERINTENDENT/SUPERVISOR:

Provide a General Superintendent that is experienced in administration; environmental remediation; general contracting coordinating, including work practices; protective measures for building occupants and personnel; disposal procedures, etc. This person is responsible for compliance with all applicable federal, state, and local regulations, particularly those relating to mercury-containing materials.

The General Superintendent must be on site at all times, and must be able to communicate in the language of Regulatory Personnel.

NON-SUPERVISORY PERSONNEL:

Provide non-supervisory personnel that have had training specifically addressing the following, as outlined in OSHA 29 CFR 1910.1000:

- Signs and symptoms of over-exposure to mercury
- Specific nature of operations which could result in exposure of mercury above the permissible exposure limit, as well as safe work practices for the handling, use, release, storage, or disposal of the mercury or its compounds in normal operations.
- Proper housekeeping practices and decontamination procedures
- Good personal hygiene practices to avoid hand-to-mouth contact.
- Proper use of protective clothing
- Proper use and limitations of respirators
- Knowledge of and purpose of medical surveillance
- Location of information regarding written procedures and hazard information

E. INSURANCE REQUIREMENTS

1. Contractor must include with his bid documents, a copy of his Certificate of Insurance. Insurance coverage shall include **General Liability, Automobile Liability, Pollution Liability, and Worker's Compensation with no less coverage than \$1 Million (\$1,000,000) for each category. The policy shall state that Sunset Clause or similar clause or clauses of intent are not included in the coverage.**
2. **Pollution Liability Insurance is required.** A completed Certificate of Insurance for Pollution Liability Insurance must be submitted **naming the Building Owner, the Owner's Managing Agent, and the facility as an additional named insured. This can be submitted upon award of the contract.**
3. Contractor shall provide "occurrence" insurance from exposure to asbestos. An "A+" rated insurance carrier shall be provided. If the insurer has less than an "A+" rating, the Contractor shall obtain approval for the insurance carrier from the Building Owners prior to commencement of the project.

4. The Contractor shall purchase and maintain in a company or companies acceptable to the Owner, such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's operations under the Contract. Whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:
 - (a) Claims under workers' compensation, disability benefits and other similar employee benefit acts;
 - (b) Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees.
 - (c) Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees.
 - (d) Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or by any other person.
 - (e) Claims for damages other than to the work itself because of injury to or destruction of tangible property, including loss of use resulting there from; and
 - (f) Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle.
5. The insurance shall be written for no less than any limits of liability specified in the Contract Documents, or required by law, whichever is greater.
 - (a) Minimum limits of liability for the following types of insurance are required as follows:

All Limits in Thousands

1. Comprehensive General Liability, including:
 - a. General Aggregate \$1,000
 - b. Products-Comp/Ops Aggregate \$1,000

- | | |
|-------------------------------------|---------|
| c. Personal & Advertising Injury | \$1,000 |
| d. Fire Damage | \$ 50 |
| e. Medical Expense (Any one person) | \$ 5 |
2. Worker's Compensation, including:
- | | |
|------------------------------------|---------|
| a. Worker's Compensation Insurance | \$1,000 |
| b. Employer's Liability | \$1,000 |
3. Comprehensive Automobile Liability
4. Combined single limit, including:
- | | |
|--------------------------|---------|
| a. All owned Automobiles | \$1,000 |
| b. Non-owned Automobiles | \$1,000 |
| c. Hired Car Coverage | \$1,000 |
- (b) In addition to Contractual Liability, including indemnification provision Bodily Injury and Property Damage coverage under both Comprehensive General and Comprehensive Automobile forms shall include 'occurrence' basis working, which means an event, or continuous or repeated exposure to conditions which unexpectedly causes injury or damage during policy period.
- (c) Contractor shall either (1) require each of his Subcontractors to procure and maintain during the life of his subcontract, Subcontractors Comprehensive General Liability, Automobile Liability and Property Liability Insurance of the type and in the same amounts as specified in above, or (2) insure the activities of his Subcontractors in his own policy.
6. The insurance shall include contractual liability insurance applicable to the Contractor's obligations under indemnification provision.
- (a) To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from and (2) is caused in whole or in part by any negligent act or

omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph.

- (b) Certificate of Insurance must be filed by an insurer authorized to do business in South Carolina by the South Carolina State Insurance Commission. All blanks and questions on the Certificate must be filled out completely. Incomplete or inadequate Certificate will be returned to the Contractor as unsatisfactory, and commencement of his work will be delayed until satisfactory Certificate is submitted. Such delay will not warrant extension of contract time.

F. BUILDING OWNER AND OWNER'S REPRESENTATIVE

Building Owner:

School District Five of Lexington & Richland Counties
1020 Dutch Fork Rd.
Irmo, SC 29063
Phone: 803-476-8000

Owner's Representative/Industrial Hygienist:

Crossroads Environmental, LLC
1258 Boiling Springs Road
Spartanburg, SC 29303
Contact: Kay H. Horton
Phone: 864-541-8736

G. SUMMARY OF TASKS:

Contractor shall properly remove and dispose of all rubberized flooring in the gymnasium.

Contract work includes:

1. Pre-abatement activities include pre-construction meeting, inspection, notifications, permits, submittal approvals, preparations, emergency arrangements, and submittal of plan of action.
2. Remediation activities include preparation of work site, removal and disposal of mercury containing and/or contaminated waste, recordkeeping, security of job site, pre-work and post-work inspections, and OSHA compliance monitoring.
3. Cleaning, decontaminating, and clearance activities including final inspection, clearance testing, certification of decontamination, and all post work submittals.

H. STOP WORK:

If the Building Owner or Owner's Representative verbally issues a stop work order, the abatement contractor shall immediately and automatically stop all work. Do not resume removal until authorized by the Building Owner or the Owner's Representative. Do not recommence work until authorized by the Building Owner or the Owner's Representative. Standby time and cost required for corrective action will be at the contractor's expense. The occurrence of the following events shall be reported in writing to the Owner's Representative and shall require the contractor to immediately stop floor removal.

1. Serious injury to a worker within the containment area that necessitates interruption of the normal decontamination procedures.
2. Presence of a fire and/or safety emergency.
3. Respiratory Protection System failure.
4. Power failure.

I. CONTRACTOR'S USE OF PREMISES:

The Contractor shall cooperate fully with the Owner's Representative to minimize conflicts and to facilitate safe and efficient usage of the building. **Contractor will confine operations to the areas where he will perform the work in accordance with the specifications. Portions of the site beyond areas on which work is indicated are not to be disturbed.**

The Owner will occupy the site and the existing building during the entire period of construction. Cooperate fully with the Owner or his representative during construction operations to minimize conflicts and

to facilitate Owner usage, and perform the work so as not to interfere with the Owner's operation.

J. USE OF THE EXISTING BUILDING:

Maintain existing building in a secure and weather tight condition throughout the construction period. The Contractor will repair any damage caused by construction operations, including damage to landscape properties, unless otherwise noted in writing.

1. Keep public areas such as hallways, stairs, elevator lobbies, and toilet areas free from accumulation of waste, rubbish, or construction debris.
2. **Smoking** or open fires will not be permitted on the premises.
3. Except for facilities designated for use by the Contractor's personnel during the Pre-Bid Meeting, use of existing toilets within the building by the Contractor and his personnel will not be permitted. **Contractor employees that are found in unauthorized areas of the facility will be asked to leave the premises and will not be allowed to return.**

K. POWER

Power will be provided by the Building Owner. If adequate power is not available, the Contractor will be responsible for providing a power supply.

L. WATER

Water will be provided by the Building Owner. The Contractor must maintain hose connections and outlet valves in leak-proof condition. Where finish work below an outlet might be damaged by spillage or leakage, provide a drip pan of suitable size to minimize the possibility of water damage. Drain water promptly from pans as it accumulates. Should the water connection cause damage, the Environmental Contractor is responsible for the repair at no cost to the building owner.

M. SANITARY FACILITIES:

The Environmental Contractor will have a designated restroom provided by the Building Owner. The restroom must be kept clean at all times, and must be sanitized upon completion of the project. Contractor will be responsible for providing toilet paper and hand towels.

N. DRIVEWAYS AND PARKING AREAS:

Keep existing driveways and entrances serving the premises clear and available to the Owner and his employees at all times. Do not use these areas for parking or storage of materials.

1. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas designated by the Building Owner. If additional storage is necessary, obtain and pay for such storage.
2. Lock automotive type vehicles such as passenger cars and trucks and other mechanized or motorized construction equipment, when parked and unattended, to prevent unauthorized use. Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place or accessible to unauthorized persons.

IV. PERSONAL PROTECTIVE EQUIPMENT

The following practices must be employed during the abatement of the above materials accordingly:

A. WORKER PROTECTION:

Before beginning work of this section, provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

Protective Clothing:

Coveralls: Provide disposable full-body coveralls with head and shoe covers, and require that they be worn by all workers in the Work/Isolation Area. Provide a sufficient number for all required changes, for all workers in the Work/Isolation Area.

Boots: Provide work boots with non-skid soles, and where required by OSHA, foot protection for all workers. Provide boots at no cost to workers. Do not allow boots to be removed from the Work/Isolation Area for any reason, after being contaminated with mercury-containing material. Thoroughly clean, decontaminate and bag boots before removing them from Work/Isolation Area at the end of the work.

Hard Hats: Provide head protection (hard hats) as required by OSHA for all workers. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats with plastic strap type suspension. If hats are utilized in the Work/Isolation Area, thoroughly clean, decontaminate and bag hats before removing them from Work/Isolation Area at the end of the work.

Goggles: Provide eye protection (goggles) as required by OSHA for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury, and/or for workers wearing contacts. Thoroughly clean, decontaminate and bag goggles before removing them from Work/Isolation Area at the end of the work.

B. RESPIRATORY PROTECTION:

Respiratory Protection Program: Comply with ANSI Z88.2 - 1992 "Practices for Respiratory Protection" and OSHA 29 CFR 1910.134 and CFR 1926.1000. Require that respiratory protection be used at all times where there is any possibility of mercury vapor release. NIOSH respirator recommendations are as follows:

- Up to 0.5 mg/m³
 - Any chemical cartridge respirator with cartridge(s) providing protections against mercury.
 - Any supplied-air respirator.
- Up to 1.25 mg/m³
 - Any supplied-air respirator in a continuous flow mode
 - Any powered, air-purifying respirator with cartridge(s) providing protection against mercury vapor.
- Up to 2.5 mg/m³
 - Any chemical cartridge respirator with a full-face piece and cartridge(s) providing protection against the compound of concern.
 - Any air-purifying, full-faced piece respirator with a chin-style, front or back mounted canister providing protection against mercury vapor.
 - Any supplied-air respirator that has a tight-fitting face piece and is operated in a continuous-flow mode
 - Any powered, air-purifying respirator with a tight-fitting face piece and cartridge(s) providing protection against the

compound of concern(canister)
-Any self-contained breathing apparatus with a full-face piece
-Any supplied-air respirator with a full-face piece

- Up to 10 mg/m³
-Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode

An initial exposure assessment should be performed at the onset of the project to determine proper respiratory protection. Cost for an exposure assessment will be the responsibility of the Environmental Contractor.

V. PREPARATION OF THE WORK AREA

A. WORK/ISOLATION AREA:

The room shall be isolated from other areas of the building by means of poly barriers and signage. Only trained personnel shall be allowed into the work area during remediation.

CONTROL ACCESS:

Provide Warning Signs at each access to the Work Area.

LEGEND:

DANGER

**RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED
IN THIS AREA**

DO NOT ENTER!

Provide spacing between respective lines at least equal to the height of the respective upper line.

Note: Alternate signage may be used upon approval by Owner's Industrial Hygienist.

B. **HEATING, VENTILATING, AND AIR CONDITIONING**

Discontinue use of HVAC system supplying air to the gym prior to start of removal.

C. **CRITICAL BARRIERS:**

Individually seal each opening between the work area and other areas including drains, ducts, grilles, grates, and diffusers with duct tape and a minimum of one layer of polyethylene sheeting at least 6 millimeters (mil) in thickness taped securely in place. Maintain all seals until all work including post-removal monitoring is complete.

D. **PRIMARY BARRIERS**

Contractor is responsible for determining if grinding or sanding will be required to sufficiently remove the flooring and residue. If either is required, all walls shall be covered, from floor to ceiling, with a layer of 6-mil polyethylene sheeting, sealed at the seams.

E. **FILTERED FAN UNITS:**

Fan units shall be installed in the work area and ventilated to the outside of the building to provide ventilation and fresh air for the workers. The fan units shall be equipped with specialty carbon filters for mercury vapors. Work area shall remain under negative pressure at all times.

F. **DECONTAMINATION UNIT:**

Provide a personnel decontamination area that includes, at a minimum, a changing area (in accordance with OSHA 1910.141(e)) and hand-washing station. Ensure that no exposed street clothes are worn into the work area, and that no protective clothing leaves the decontamination area. The decontamination unit shall be the only means of entry to and exit from the work area.

VI. **PROHIBITED PRACTICES**

- 1) All food, beverages, tobacco products, gum, and unapplied cosmetics are prohibited from the work area.

- 2) Rings, watches, wallets, combs, and other personal items are prohibited from the work area. The frames of safety glasses or personal glasses should be carefully cleaned after each shift.
- 3) Contact lenses shall not be used in the work area unless safety goggles are worn in addition to the contacts. If goggles are worn over the contacts, the goggles shall stay securely sealed to the employee's face at all times.
- 4) No use of heat.

VII. REMOVAL PROCEDURES

FLOORING REMOVAL:

Remove flooring using manual methods and/or electric cutters. Avoid methods that would create an increase in heat by friction (rotary saws, etc.). Do not use open-flame tools, heat guns, or high-speed abrasive equipment that generates heat.

Remove all flooring (down to bare slab).

Following removal, conduct thorough cleaning of all work surfaces by means of HEPA vacuuming and damp wiping with appropriate cleaning agents.

VIII. WASTE STORAGE AND DISPOSAL PROCEDURES

Toxicity Characteristic Leaching Procedure (TCLP) tests shall be collected and analyzed to determine that waste is below the established level of 0.2 mg/L mercury concentration in a TCLP extract (EPA Method SW 1311) or any other established level per the contaminant of a solid waste equal to or above which the material must be managed as a characteristic hazardous waste.

The samples can be collected as early as the first day of removal by the Owner's Industrial Hygienist.

Contactor shall quote the project assuming that the waste must be disposed of as hazardous waste.

IX. AIR MONITORING

PERSONNEL MONITORING

In accordance with the Occupational Safety and Health Administration's (OSHA) standard for air contaminants (29 CFR 1910.1000), employee exposure to airborne mercury or its inorganic compounds shall not exceed an 8-hour time-weighted average limit of 0.1 mg/m³, or a limit set by a state agency whenever a state-administered Occupational Safety and Health Plan is in effect. It should be emphasized that the permissible exposure limit is a time-weighted average. The first mandatory requirement is that employee exposure be eliminated through the implementation of feasible engineering controls. After all such controls are implemented and do not fully control to permissible exposure limits, each employer must rotate its employees to the extent possible in order to reduce exposure. Only when all engineering or administrative controls have been implemented, and the level of mercury still exceeds permissible exposure limits, may an employer rely on a respirator program pursuant to the mandatory requirements of 1910.134. It is mandatory that no employee be allowed to consume food or beverages in an area exposed to mercury (29 CFR 1910.141(g) (2)). Where working conditions or other practices constitute recognized hazards likely to cause death or serious physical harm; they must be corrected pursuant to Section 5(a) (1) of the Occupational Safety and Health Act.

In addition to these mandatory requirements, the National Institute of Occupational Safety and Health has recommended that the limit be lowered to 0.05 mg/m³; this recommendation is currently being considered by OSHA. Pending such consideration, the following recommendations are made to ensure that employee exposure to mercury and its inorganic compounds is controlled to the permissible exposure limit.

(i) Employee exposure measurements should represent the actual breathing zone exposure conditions for each employee. Any appropriate combination of long-term or short-term samples would be acceptable, but all exposures should be calculated on an 8-hour time-weighted average, assuming a 40-hour workweek, to arrive at the permissible exposure limit.

(ii) Accuracy of Measurement. The method of monitoring and analysis should have an accuracy of not less than plus or minus 20% for concentrations of airborne mercury vapor or the dust of its inorganic compounds equal to or greater than the permissible exposure limit. (One

method meeting this accuracy requirement is available in the "NIOSH Manual of Analytical Methods," Government Printing Office Stock No. 1733-00041.)

Personnel monitoring will be the responsibility of the Contractor. Results shall be provided to the Building Owner's Representative as part of the project close-out.

AREA MONITORING

If requested by the Building Owner, perimeter monitoring will be performed outside of the Work Area during abatement.

If elevated readings outside of the work area are detected, work shall be paused, ventilation shall be adjusted, and controls shall be reassessed before resuming.

CLEARANCE MONITORING

The Building Owner will pay to complete the clearance monitoring for the removal of the flooring. The Environmental Contractor must pass a visual clearance prior to the clearance monitoring.

Mercury testing as described herein will be the responsibility of the Building Owner and may employ combination of the NIOSH Method 6009 and Haloumi RA-915+ Mercury Analyzer, or comparable instrument, for the determination of mercury vapor concentrations in the air, specifically to ensure that the project and regulatory action levels are met. An instantaneous device will be used to spot check after removal. In the event that the concrete surface does not pass screening using the instantaneous device, MerconX™, an effective decontaminating solution, shall be used by the contractor to mop down the gym floor. After levels have been reduced, air samples will be collected and submitted to an accredited laboratory for analysis.

If the first clearance fails, the Contractor will be responsible for subsequent clearance sampling.

X. CONTRACTOR RELEASE CRITERIA FOR FINAL WORK AREA CLEARANCE:

1) FINAL VISUAL CLEARANCE

The Owner's Industrial Hygienist will perform a final inspection to ensure that all tartan flooring and associated debris have been removed.

2) CLEARANCE TESTING

Post Decontamination Air Clearance Level (PDCL): This is the concentration of mercury vapor at the surface of an item or area, which has been decontaminated, below which the item or surface requires no further decontamination. The Agency for Toxic Substances & Disease Registry (ATSDR) Indoor Air Quality level is 1.0 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) or 1,000 nanograms per cubic meter (ng/m^3). This is the established maximum concentration for residential indoor air quality published by an agency of the Center for Disease Control and Prevention (CDC). This will be considered the clearance level required prior to installation of the new flooring.

XI. WASTE STORAGE AND DISPOSAL

Waste must be stored in locked, sealed dumpsters while on site. Containers must be locked at all times, except during loading and unloading.

If TCLP results indicate that the removed flooring material contains greater than 0.2 mg/L of mercury, then the material must be handled, stored, and disposed of as hazardous waste. This will include properly accumulating, storing, and disposing of the waste at an EPA permitted Treatment, Storage, and Disposal Facility. The contractor is required to use an approved hazardous waste disposal contractor for disposal of the hazardous waste. The contractor shall follow all pertinent requirements of 40 CFR 262.34 and any applicable parts of 40 CFR 264 and 265.

If TCLP results indicate that the removed flooring material contains less than 0.2 mg/L of mercury, then the material must be transported in a lined dumpster and disposed of in SCDES approved Class II landfill.

Contract is responsible for collaborating with school district to get any waste generator information needed for proper waste transport and disposal.

XII. SUBMITTALS

The attached sheets include the submittal requirements prior to the start of work, and before project closeout. Submittal for the section At Project Closeout must be submitted to the Owner's Representative with the Final Payment Request.

SUBMITTAL CHECKLIST - MANDATORY

Submittal for section Before Start of Work must be turned in to the Owner or the Owner's Representative at the Pre-Construction Meeting. If no Pre-Construction Meeting is held, then the paperwork must be submitted to the Owner's or the Owner's Representative Office 48 Hours before the start of work. The Owner or Owner's Representative will then give the contractor written permission to begin work. The Contractor will not begin work without written permission.

BEFORE START OF WORK

- _____ 1. Contractor's anticipated work schedule must be provided to the Project Manager five (5) working days prior to the start of work.
- _____ 2. Mercury training certificates for all personnel performing work of this contract.
- _____ 3. Insurance Certificate.

Submittal for the section Periodically During Work or Before Project Closeout must be submitted to the Owner or Owner's Representative with the Progressive Payment Request. If Progressive Payments are not indicated, then the submittals must be turned into the Owner or Owner's Representative Office before the Project Closeout. Contractor must have written permission from Owner or Owner's Representative before beginning Project Closeout.

PERIODICALLY DURING WORK OR BEFORE PROJECT CLOSEOUT

- _____ 4. Daily Logs filled out and signed by the Project Supervisor
- _____ 5. Daily Sign In\Sign Out Sheets
- _____ 6. Contractor's copy of Initial Exposure Assessment
- _____ 7. Accident and Incident Investigation Report
- _____ 8. Visitor Log and signed Visitor's Authorization Form
- _____ 9. Personnel Air monitoring reports

Submittal for the section At Project Closeout must be submitted with the Final Payment Request.

AT PROJECT CLOSEOUT

- _____ 10. Certification of Removal
- _____ 11. Waste Manifest completed by and signed by the Contractor Representative, Transporter and Disposal Site Representative within 35 days.



SPECIFICATIONS FOR FLOORING REMOVAL

FOR

CLIENT

**School District Five of Lexington & Richland Counties
1020 Dutch Fork Road
Irmo, South Carolina 29063**

SITE LOCATION

**Crossroads Intermediate School
6949 Andrews Road
Columbia, SC 29212**

Prepared by:

**Kay H. Horton
Crossroads Environmental, LLC
1258 Boiling Springs Road
Spartanburg, SC 29303
(864) 541-8736
CRE Project #: PD26-1179-26700**

Table of Contents

I. PREFACE/GENERAL DESCRIPTION	Page 1
II. SCOPE OF WORK	Page 1
III. CONTRACTOR INFORMATION	Page 2
A. SUBMITTALS	
B. NOTIFICATION/LICENSES	
C. CODES AND REGULATIONS	
D. PERSONNEL	
E. INSURANCE REQUIREMENTS	
F. BUILDING OWNER AND FACILITY INFORMATION	
G. SUMMARY OF TASKS	
H. STOP WORK	
I. CONTRACTOR'S USE OF PREMISES	
J. USE OF THE EXISTING BUILDING	
K. POWER & WATER	
L. WATER	
M. SANITARY FACILITIES	
N. DRIVEWAYS AND PARKING AREAS	
IV. PERSONAL PROTECTIVE EQUIPMENT	Page 10
A. WORKER PROTECTION	
B. RESPIRATORY PROTECTION	
V. PREPARATION OF THE WORK AREA(S)	Page 12
A. WORK/ISOLATION AREA	
B. HEATING, VENTILATING AND AIR CONDITIONING	
C. CRITICAL BARRIERS	
D. PRIMARY BARRIERS	
E. FILTERED FAN UNITS	
F. DECONTAMINATION	
F. TEMPORARY LIGHTING FOR FULL CONTAINMENT	
VI. PROHIBITED PRACTICES	Page 13
VII. REMOVAL PROCEDURES	Page 14
VIII. WASTE STORAGE AND DISPOSAL PROCEDURES	Page 14
IX. AIR MONITORING	Page 14
X. CONTRACTOR RELEASE CRITERIA FOR FINAL WORK AREA CLEARANCE	Page 16
XI. WASTE STORAGE AND DISPOSAL	Page 17
XII. SUBMITTALS	Page 17



SPECIFICATIONS FOR MERCURY-CONTAINING FLOORING REMOVAL

CROSSROADS INTERMEDIATE SCHOOL

CRE PROJECT DESIGN #: PD26-1179-26700

I. PREFACE/GENERAL DESCRIPTION

The 9,000 square foot gymnasium of Crossroads Intermediate School consists of rubberized flooring over a concrete slab. Sample(s) collected from the rubberized flooring confirm that the flooring contains mercury. The flooring is scheduled for removal prior to installation of hardwood flooring.

II. SCOPE OF WORK

The scope of work will include removal of all flooring down to the concrete slab and properly disposing of the flooring material. All work must be performed by a properly trained remediation contractor who specializes in removal and disposal of hazardous materials.

This specification establishes minimum environmental and industrial hygiene requirements for the removal of a mercury-containing gymnasium floor system. The intent is to ensure that removal activities are conducted in a manner that is protective of workers, prevents mercury vapor migration within the building, and allows for clearance confirmation prior to installation of a new floor system.

III. CONTRACTOR INFORMATION

A. SUBMITTALS

Project documentation including insurance certificate (see insurance requirements), training certificates, and waste shipment records must be submitted to the Building Owner's Representative. Waste shipment records must be submitted within 35 days after completion of project.

B. NOTIFICATIONS/LICENSES

Maintain current accreditations and/or licenses as required by South Carolina State or local jurisdictions for companies and employees for the removal, transportation, disposal, or other regulated activity related to the work of this contract.

Contractor is responsible for obtaining a City Business license.

C. CODES AND REGULATIONS

The contractor shall assume full responsibility and liability for compliance with applicable federal, state, and local regulations pertaining to work practices, waste handling, and worker protection.

The following are examples of regulations that apply, but should not be considered all-inclusive.

Environmental Protection Agency (EPA) Regulations:

1. Resource Conservation and Recovery Act (RCRA)
2. 40 CFR Parts 260-272, Solid and Hazardous Waste (RCRA)

Department of Transportation (DOT) Regulations:

1. Hazardous Materials Transportation Act
2. 49 CFR Parts 171 through 177

Occupational Safety and Health Administration (OSHA) Regulations:

1. Respiratory Protection- 29 CFR 1910.134
2. Hazard Communication- 29 CFR 1910.1200
3. Specifications for Accident Prevention Signs and Tags-29 CFR 1910.145
4. Air Contaminants- 29 CFR 1910.1000
5. Inorganic Mercury and its Compounds-OSHA Directive CPL 02-02-006

D. PERSONNEL

THE CONTRACTOR MUST PROVIDE AN ADEQUATE NUMBER OF QUALIFIED PERSONNEL TO MEET THE SCHEDULE REQUIREMENTS OF THE PROJECT.

GENERAL SUPERINTENDENT/SUPERVISOR:

Provide a General Superintendent that is experienced in administration; environmental remediation; general contracting coordinating, including work practices; protective measures for building occupants and personnel; disposal procedures, etc. This person is responsible for compliance with all applicable federal, state, and local regulations, particularly those relating to mercury-containing materials.

The General Superintendent must be on site at all times, and must be able to communicate in the language of Regulatory Personnel.

NON-SUPERVISORY PERSONNEL:

Provide non-supervisory personnel that have had training specifically addressing the following, as outlined in OSHA 29 CFR 1910.1000:

- Signs and symptoms of over-exposure to mercury
- Specific nature of operations which could result in exposure of mercury above the permissible exposure limit, as well as safe work practices for the handling, use, release, storage, or disposal of the mercury or its compounds in normal operations.
- Proper housekeeping practices and decontamination procedures
- Good personal hygiene practices to avoid hand-to-mouth contact.
- Proper use of protective clothing
- Proper use and limitations of respirators
- Knowledge of and purpose of medical surveillance
- Location of information regarding written procedures and hazard information

E. INSURANCE REQUIREMENTS

1. Contractor must include with his bid documents, a copy of his Certificate of Insurance. Insurance coverage shall include **General Liability, Automobile Liability, Pollution Liability, and Worker's Compensation with no less coverage than \$1 Million (\$1,000,000) for each category. The policy shall state that Sunset Clause or similar clause or clauses of intent are not included in the coverage.**
2. **Pollution Liability Insurance is required.** A completed Certificate of Insurance for Pollution Liability Insurance must be submitted **naming the Building Owner, the Owner's Managing Agent, and the facility as an additional named insured. This can be submitted upon award of the contract.**
3. Contractor shall provide "occurrence" insurance from exposure to asbestos. An "A+" rated insurance carrier shall be provided. If the insurer has less than an "A+" rating, the Contractor shall obtain approval for the insurance carrier from the Building Owners prior to commencement of the project.
4. The Contractor shall purchase and maintain in a company or companies acceptable to the Owner, such insurance as will protect

him from claims set forth below which may arise out of or result from the Contractor's operations under the Contract. Whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- (a) Claims under workers' compensation, disability benefits and other similar employee benefit acts;
 - (b) Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees.
 - (c) Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees.
 - (d) Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or by any other person.
 - (e) Claims for damages other than to the work itself because of injury to or destruction of tangible property, including loss of use resulting there from; and
 - (f) Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle.
5. The insurance shall be written for no less than any limits of liability specified in the Contract Documents, or required by law, whichever is greater.
- (a) Minimum limits of liability for the following types of insurance are required as follows:

All Limits in Thousands

- 1. Comprehensive General Liability, including:
 - a. General Aggregate \$1,000
 - b. Products-Comp/Ops Aggregate \$1,000
 - c. Personal & Advertising Injury \$1,000
 - d. Fire Damage \$ 50

- | | |
|-------------------------------------|------|
| e. Medical Expense (Any one person) | \$ 5 |
|-------------------------------------|------|
-
- | | |
|--------------------------------------|---------|
| 2. Worker's Compensation, including: | |
| a. Worker's Compensation Insurance | \$1,000 |
| b. Employer's Liability | \$1,000 |
-
- | | |
|---------------------------------------|--|
| 3. Comprehensive Automobile Liability | |
|---------------------------------------|--|
-
- | | |
|--------------------------------------|---------|
| 4. Combined single limit, including: | |
| a. All owned Automobiles | \$1,000 |
| b. Non-owned Automobiles | \$1,000 |
| c. Hired Car Coverage | \$1,000 |
-
- (b) In addition to Contractual Liability, including indemnification provision Bodily Injury and Property Damage coverage under both Comprehensive General and Comprehensive Automobile forms shall include 'occurrence' basis working, which means an event, or continuous or repeated exposure to conditions which unexpectedly causes injury or damage during policy period.
- (c) Contractor shall either (1) require each of his Subcontractors to procure and maintain during the life of his subcontract, Subcontractors Comprehensive General Liability, Automobile Liability and Property Liability Insurance of the type and in the same amounts as specified in above, or (2) insure the activities of his Subcontractors in his own policy.
6. The insurance shall include contractual liability insurance applicable to the Contractor's obligations under indemnification provision.
- (a) To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for

whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph.

- (b) Certificate of Insurance must be filed by an insurer authorized to do business in South Carolina by the South Carolina State Insurance Commission. All blanks and questions on the Certificate must be filled out completely. Incomplete or inadequate Certificate will be returned to the Contractor as unsatisfactory, and commencement of his work will be delayed until satisfactory Certificate is submitted. Such delay will not warrant extension of contract time.

F. BUILDING OWNER AND OWNER'S REPRESENTATIVE

Building Owner:

School District Five of Lexington & Richland Counties
1020 Dutch Fork Rd.
Irmo, SC 29063
Phone: 803-476-8000

Owner's Representative/Industrial Hygienist:

Crossroads Environmental, LLC
1258 Boiling Springs Road
Spartanburg, SC 29303
Contact: Kay H. Horton
Phone: 864-541-8736

G. SUMMARY OF TASKS:

Contractor shall properly remove and dispose of all rubberized flooring in the gymnasium.

Contract work includes:

1. Pre-abatement activities include pre-construction meeting, inspection, notifications, permits, submittal approvals, preparations, emergency arrangements, and submittal of plan of action.
2. Remediation activities include preparation of work site, removal and disposal of asbestos containing and/or contaminated waste,

recordkeeping, security of job site, pre-work and post-work inspections, and OSHA compliance monitoring.

3. Cleaning, decontaminating, and clearance activities including final inspection, clearance testing, certification of decontamination, and all post work submittals.

H. STOP WORK:

If the Building Owner or Owner's Representative verbally issues a stop work order, the abatement contractor shall immediately and automatically stop all work. Do not resume removal until authorized by the Building Owner or the Owner's Representative. Do not recommence work until authorized by the Building Owner or the Owner's Representative. Standby time and cost required for corrective action will be at the contractor's expense. The occurrence of the following events shall be reported in writing to the Owner's Representative and shall require the contractor to immediately stop asbestos removal and initiate fiber reduction and other appropriate activities:

1. Serious injury to a worker within the containment area that necessitates interruption of the normal decontamination procedures.
2. Presence of a fire and/or safety emergency.
3. Respiratory Protection System failure.
4. Power failure.

I. CONTRACTOR'S USE OF PREMISES:

The Contractor shall cooperate fully with the Owner's Representative to minimize conflicts and to facilitate safe and efficient usage of the building. **Contractor will confine operations to the areas where he will perform the work in accordance with the specifications. Portions of the site beyond areas on which work is indicated are not to be disturbed.**

The Owner will occupy the site and the existing building during the entire period of construction. Cooperate fully with the Owner or his representative during construction operations to minimize conflicts and to facilitate Owner usage, and perform the work so as not to interfere with the Owner's operation.

J. USE OF THE EXISTING BUILDING:

Maintain existing building in a secure and weather tight condition throughout the construction period. The Contractor will repair any damage caused by construction operations, including damage to landscape properties, unless otherwise noted in writing. Take all precautions necessary to protect the building and its occupants during the construction period.

1. Keep public areas such as hallways, stairs, elevator lobbies, and toilet areas free from accumulation of waste, rubbish, or construction debris.
2. **Smoking** or open fires will not be permitted on the premises.
3. Except for facilities designated for use by the Contractor's personnel during the Pre-Bid Meeting, use of existing toilets within the building by the Contractor and his personnel will not be permitted. **Contractor employees that are found in unauthorized areas of the facility will be asked to leave the premises and will not be allowed to return.**

K. POWER

Power will be provided by the Building Owner. If adequate power is not available, the Contractor will be responsible for providing a power supply.

L. WATER

Water will be provided by the Building Owner. The Contractor must maintain hose connections and outlet valves in leak-proof condition. Where finish work below an outlet might be damaged by spillage or leakage, provide a drip pan of suitable size to minimize the possibility of water damage. Drain water promptly from pans as it accumulates. Should the water connection cause damage, the Environmental Contractor is responsible for the repair at no cost to the building owner.

M. SANITARY FACILITIES:

The Environmental Contractor will have a designated restroom provided by the Building Owner. The restroom must be kept clean at all times, and must be sanitized upon completion of the project. Contractor will be responsible for providing toilet paper and hand towels.

N. DRIVEWAYS AND PARKING AREAS:

Keep existing driveways and entrances serving the premises clear and available to the Owner and his employees at all times. Do not use these areas for parking or storage of materials.

1. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas designated by the Building Owner. If additional storage is necessary, obtain and pay for such storage.
2. Lock automotive type vehicles such as passenger cars and trucks and other mechanized or motorized construction equipment, when parked and unattended, to prevent unauthorized use. Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place or accessible to unauthorized persons.

IV. PERSONAL PROTECTIVE EQUIPMENT

The following practices must be employed during the abatement of the above materials accordingly:

A. WORKER PROTECTION:

Before beginning work of this section, provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

Protective Clothing:

Coveralls: Provide disposable full-body coveralls with head and shoe covers, and require that they be worn by all workers in the Work/Isolation Area. Provide a sufficient number for all required changes, for all workers in the Work/Isolation Area.

Boots: Provide work boots with non-skid soles, and where required by OSHA, foot protection for all workers. Provide boots at no cost to workers. Do not allow boots to be removed from the Work/Isolation Area for any reason, after being contaminated with mercury-containing material. Thoroughly clean, decontaminate and bag boots before removing them from Work/Isolation Area at the end of the work.

Hard Hats: Provide head protection (hard hats) as required by OSHA for all workers. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats with plastic strap type suspension. If hats are utilized in the Work/Isolation Area, thoroughly clean, decontaminate and bag hats before removing them from Work/Isolation Area at the end of the work.

Goggles: Provide eye protection (goggles) as required by OSHA for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury, and/or for workers wearing contacts. Thoroughly clean, decontaminate and bag goggles before removing them from Work/Isolation Area at the end of the work.

B. RESPIRATORY PROTECTION:

Respiratory Protection Program: Comply with ANSI Z88.2 - 1992 "Practices for Respiratory Protection" and OSHA 29 CFR 1910.134 and CFR 1926.1000. Require that respiratory protection be used at all times where there is any possibility of mercury vapor release. NIOSH respirator recommendations are as follows:

- Up to 0.5 mg/m³
 - Any chemical cartridge respirator with cartridge(s) providing protections against mercury.
 - Any supplied-air respirator.
- Up to 1.25 mg/m³
 - Any supplied-air respirator in a continuous flow mode
 - Any powered, air-purifying respirator with cartridge(s) providing protection against mercury vapor.
- Up to 2.5 mg/m³
 - Any chemical cartridge respirator with a full-face piece and cartridge(s) providing protection against the compound of concern.
 - Any air-purifying, full-faced piece respirator with a chin-style, front or back mounted canister providing protection against mercury vapor.
 - Any supplied-air respirator that has a tight-fitting face piece and is operated in a continuous-flow mode
 - Any powered, air-purifying respirator with a tight-fitting face piece and cartridge(s) providing protection against the compound of concern (canister)

- Any self-contained breathing apparatus with a full-face piece
- Any supplied-air respirator with a full-face piece

- Up to 10 mg/m³
 - Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode

An initial exposure assessment should be performed at the onset of the project to determine proper respiratory protection. Cost for an exposure assessment will be the responsibility of the Environmental Contractor.

V. PREPARATION OF THE WORK AREA

A. WORK/ISOLATION AREA:

The room shall be isolated from other areas of the building by means of poly barriers and signage. Only trained personnel shall be allowed into the work area during remediation.

CONTROL ACCESS:

Provide Warning Signs at each access to the Work Area.

LEGEND:

DANGER

**RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED
IN THIS AREA**

DO NOT ENTER!

Provide spacing between respective lines at least equal to the height of the respective upper line.

Note: Alternate signage may be used upon approval by Owner's Industrial Hygienist.

B. HEATING, VENTILATING, AND AIR CONDITIONING

Discontinue use of HVAC system supplying air to the gym prior to start of removal.

C. **CRITICAL BARRIERS:**

Individually seal each opening between the work area and other areas including drains, ducts, grilles, grates, and diffusers with duct tape and a minimum of one layer of polyethylene sheeting at least 6 millimeters (mil) in thickness taped securely in place. Maintain all seals until all work including post-removal monitoring is complete.

D. **PRIMARY BARRIERS**

Contractor is responsible for determining if grinding or sanding will be required to sufficiently remove the flooring and residue. If either is required, all walls shall be covered, from floor to ceiling, with a layer of 6-mil polyethylene sheeting, sealed at the seams.

E. **FILTERED FAN UNITS:**

Fan units shall be installed in the work area and ventilated to the outside of the building to provide ventilation and fresh air for the workers. The fan units shall be equipped with specialty carbon filters for mercury vapors. Work area shall remain under negative pressure at all times.

F. **DECONTAMINATION:**

Provide a personnel decontamination area that includes, at a minimum, a changing area (in accordance with OSHA 1910.141(e)) and hand-washing station. Ensure that no exposed street clothes are worn into the work area, and that no protective clothing leaves the decontamination area. The decontamination unit shall be the only means of entry to and exit from the work area.

VI. **PROHIBITED PRACTICES**

- 1) All food, beverages, tobacco products, gum, and unapplied cosmetics are prohibited from the work area.
- 2) Rings, watches, wallets, combs, and other personal items are prohibited from the work area. The frames of safety glasses or personal glasses should be carefully cleaned after each shift.
- 3) Contact lenses shall not be used in the work area unless safety goggles are worn in addition to the contacts. If goggles are worn over the contact, the goggles shall stay securely sealed to the employee's face at all times.

- 4) No dry sweeping.

VII. REMOVAL PROCEDURES

FLOORING REMOVAL:

Remove flooring using manual methods and/or electric cutters. Avoid methods that would create an increase in heat by friction (rotary saws, etc.). Do not use open-flame tools, heat guns, or high-speed abrasive equipment that generates heat.

Remove all flooring (down to bare slab).

Following removal, conduct thorough cleaning of all work surfaces by means of HEPA vacuuming and damp wiping with appropriate cleaning agents.

VIII. WASTE STORAGE AND DISPOSAL PROCEDURES

Toxicity Characteristic Leaching Procedure (TCLP) tests shall be collected and analyzed to determine that waste is below the established level of 0.2 mg/L mercury concentration in a TCLP extract (EPA Method SW 1311) or any other established level per the contaminant of a solid waste equal to or above which the material must be managed as a characteristic hazardous waste.

The samples can be collected as early as the first day of removal by the Owner's Industrial Hygienist.

Contactor shall quote the project assuming that the waste must be disposed of as hazardous waste.

IX. AIR MONITORING

PERSONNEL MONITORING

In accordance with the Occupational Safety and Health Administration's (OSHA) standard for air contaminants (29 CFR 1910.1000), employee exposure to airborne mercury or its inorganic compounds shall not exceed an 8-hour time-weighted average limit of 0.1 mg/m³, or a limit set by a state agency whenever a state-administered Occupational Safety and Health Plan is in effect. It should be emphasized that the permissible exposure limit is a time-weighted average. The first mandatory

requirement is that employee exposure be eliminated through the implementation of feasible engineering controls. After all such controls are implemented and do not fully control to permissible exposure limits, each employer must rotate its employees to the extent possible in order to reduce exposure. Only when all engineering or administrative controls have been implemented, and the level of mercury still exceeds permissible exposure limits, may an employer rely on a respirator program pursuant to the mandatory requirements of 1910.134. It is mandatory that no employee be allowed to consume food or beverages in an area exposed to mercury (29 CFR 1910.141(g) (2)). Where working conditions or other practices constitute recognized hazards likely to cause death or serious physical harm; they must be corrected pursuant to Section 5(a) (1) of the Occupational Safety and Health Act.

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(i) Employee exposure measurements should represent the actual breathing zone exposure conditions for each employee. Any appropriate combination of long-term or short-term samples would be acceptable, but all exposures should be calculated on an 8-hour time-weighted average, assuming a 40-hour workweek, to arrive at the permissible exposure limit.

(ii) Accuracy of Measurement. The method of monitoring and analysis should have an accuracy of not less than plus or minus 20% for concentrations of airborne mercury vapor or the dust of its inorganic compounds equal to or greater than the permissible exposure limit. (One method meeting this accuracy requirement is available in the "NIOSH Manual of Analytical Methods," Government Printing Office Stock No. 1733-00041.)

Personnel monitoring will be the responsibility of the Contractor. Results shall be provided to the Building Owner's Representative as part of the project close-out.

AREA MONITORING

If requested by the Building Owner, perimeter monitoring will be performed outside of the Work Area during abatement.

If elevated readings outside of the work area are detected, work shall be paused, ventilation shall be adjusted, and controls shall be reassessed before resuming.

CLEARANCE MONITORING

The Building Owner will pay to complete the clearance monitoring for the removal of the flooring. The Environmental Contractor must pass a visual clearance prior to the clearance monitoring.

Mercury testing as described herein will be the responsibility of the Building Owner and may employ combination of the NIOSH Method 6009 and Haloumi RA-915+ Mercury Analyzer, or comparable instrument, for the determination of mercury vapor concentrations in the air, specifically to ensure that the project and regulatory action levels are met. An instantaneous device will be used to spot check after removal. In the event that the concrete surface does not pass screening using the instantaneous device, MerconX™, an effective decontaminating solution, shall be used by the contractor to mop down the gym floor. After levels have been reduced, air samples will be collected and submitted to an accredited laboratory for analysis.

If the first clearance fails, the Contractor will be responsible for subsequent clearance sampling.

X. CONTRACTOR RELEASE CRITERIA FOR FINAL WORK AREA CLEARANCE:

1) FINAL VISUAL CLEARANCE

The Owner's Industrial Hygienist will perform a final inspection to ensure that all tartan flooring and associated debris have been removed.

2) CLEARANCE TESTING

Post Decontamination Air Clearance Level (PDCL): This is the concentration of mercury vapor at the surface of an item or area, which has been decontaminated, below which the item or surface requires no further decontamination. The Agency for Toxic Substances & Disease Registry (ATSDR) Indoor Air Quality level is 1.0 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) or 1,000 nanograms per cubic meter (ng/m^3). This is the established maximum concentration for residential indoor air quality

published by an agency of the Center for Disease Control and Prevention (CDC). This will be considered the clearance level required prior to installation of the new flooring.

XI. WASTE STORAGE AND DISPOSAL

Waste must be stored in locked, sealed dumpsters while on site. Containers must be locked at all times, except during loading and unloading.

If TCLP results indicate that the removed flooring material contains greater than 0.2 mg/L of mercury, then the material must be handled, stored, and disposed of as hazardous waste. This will include properly accumulating, storing, and disposing of the waste at an EPA permitted Treatment, Storage, and Disposal Facility. The contractor is required to use an approved hazardous waste disposal contractor for disposal of the hazardous waste. The contractor shall follow all pertinent requirements of 40 CFR 262.34 and any applicable parts of 40 CFR 264 and 265.

If TCLP results indicate that the removed flooring material contains less than 0.02 mg/L of mercury, then the material must be transported in a lined dumpster and disposed of in SCDES approved Class II landfill.

Contract is responsible for collaborating with school district to get any waste generator information needed for proper waste transport and disposal.

XII. SUBMITTALS

The attached sheets include the submittal requirements prior to the start of work, and before project closeout. Submittal for the section At Project Closeout must be submitted to the Owner's Representative with the Final Payment Request.

SUBMITTAL CHECKLIST - MANDATORY

Submittal for section Before Start of Work must be turned in to the Owner or the Owner's Representative at the Pre-Construction Meeting. If no Pre-Construction Meeting is held, then the paperwork must be submitted to the Owner's or the Owner's Representative Office 48 Hours before the start of work. The Owner or Owner's Representative will then give the contractor written permission to begin work. The Contractor will not begin work without written permission.

BEFORE START OF WORK

- _____ 1. Contractor's anticipated work schedule must be provided to the Project Manager five (5) working days prior to the start of work.
- _____ 2. Mercury training certificates for all personnel performing work of this contract.
- _____ 3. Insurance Certificate.

Submittal for the section Periodically During Work or Before Project Closeout must be submitted to the Owner or Owner's Representative with the Progressive Payment Request. If Progressive Payments are not indicated, then the submittals must be turned into the Owner or Owner's Representative Office before the Project Closeout. Contractor must have written permission from Owner or Owner's Representative before beginning Project Closeout.

PERIODICALLY DURING WORK OR BEFORE PROJECT CLOSEOUT

- _____ 4. Daily Logs filled out and signed by the Project Supervisor
- _____ 5. Daily Sign In\Sign Out Sheets
- _____ 6. Contractor's copy of Initial Exposure Assessment
- _____ 7. Accident and Incident Investigation Report
- _____ 8. Visitor Log and signed Visitor's Authorization Form
- _____ 9. Personnel Air monitoring reports

Submittal for the section At Project Closeout must be submitted with the Final Payment Request.

AT PROJECT CLOSEOUT

- _____ 10. Certification of Removal
- _____ 11. Waste Manifest completed by and signed by the Contractor Representative, Transporter and Disposal Site Representative within 35 days.