



National Aeronautics and
Space Administration
John C. Stennis Space Center
Stennis Space Center, MS 39529-6000

CONTRACTOR TRANSMITTAL SHEET

DATE
29 April 2013

SHEET 1 OF 1

SECTION I - REQUEST FOR APPROVAL *(To be Initiated by the Contractor)*

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR
MANUFACTURER'S CERTIFICATES OF COMPLIANCE
(See Instructions on Reverse)

CONTRACT NO.
NNS13AB13T

NEW SUBMITTAL
 RESUBMITTAL

TO

(b)(6)

FROM

Sauer Southeast

PREVIOUS TRANSMITTAL NO. *(If Any)*

N/A

TRANSMITTAL NO.

002

SPECIFICATION AND SECTION NO. *(Cover Only One Section With Each Transmittal)*

200HF-G012 Section: 02 82 33.13.20 Removal/Collection Lead Paint

PROJECT TITLE AND LOCATION

EMI-12NCBZ-13 LEVEL 8 PLATFORMS/B2 TEST STAND

ITEM NO. (a)	DESCRIPTION OF ITEM SUBMITTED (Type, Size, Model Number, ect.) (See Instruction No. 3) (b)	MANUFACTURER OF ITEM (See Instruction No. 8) (c)	NO. OF COPIES (d)	CONTRACT REFERENCE DOCUMENT		VARIATION (See Instruction No. 6) (g)	ACTION CODE (See Instruction No. 9) (h)
				SPECIFICATION PARAGRAPH NO. (e)	DRAWING SHEET NO. (f)		
104	Lead Based Paint/Lead Containing Paint Removal Plan	ICCI	6	1.5.3			
105	Hazard Waste Management Plan	ICCI	6	1.5.2.9			
116	Hazard Communication Program	ICCI	6	1.5.2.8			
117	Hazard Communication Program	ICCI	6	1.5.2.9			

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200HF-G012 Section: 02 82 33.13.20 Removal/Collection Lead Paint

PROJECT TITLE AND LOCATION

EMI-12NCBZ-14 BATTLESHIP/B2 TEST STAND

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EMI-12NCBZ-15 FLAME BUCKET/B2 TEST STAND

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PROJECT TITLE AND LOCATION

EMI-12NCBZ-16 BASEMENT AND SUB-BASEMENT REPAIR/B2 TEST STAND

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SPECIFICATION AND SECTION NO. *(Cover Only One Section With Each Transmittal)*

200HF-G012 Section: 02 82 33.13.20 Removal/Collection Lead Paint

PROJECT TITLE AND LOCATION

EMI-12NCBZ-17 BATTLESHIP BRACES/B2 TEST STAND

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TRANSMITTAL NO.
002

SPECIFICATION AND SECTION NO. *(Cover Only One Section With Each Transmittal)*
200HF-GA11 Section 02 82 33.13 20 Removal/Collection Lead Paint

PROJECT TITLE AND LOCATION
EMI-SL430WFB00-01 Trust Takeout Tendon Res. & Prt. Repl. of Existing Accs. Platforms

ITEM NO. (a)	DESCRIPTION OF ITEM SUBMITTED (Type, Size, Model Number, ect.) (See Instruction No. 3) (b)	MANUFACTURER OF ITEM (See Instruction No. 8) (c)	NO. OF COPIES (d)	CONTRACT REFERENCE DOCUMENT		VARIATION (See Instruction No. 6) (g)	ACTION CODE (See Instruction No. 9) (h)
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77	Lead Based Paint/Lead Containing Paint Removal Plan	ICCI	6	1.7			
79	Hazard Communication Plan	ICCI	6	1.10.5			
80	Hazard Waste Management Plan	ICCI	6	1.10.6			

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TO <div style="background-color: black; color: red; padding: 2px;">(b)(6)</div>	FROM Sauer Southeast	PREVIOUS TRANSMITTAL NO. <i>(If Any)</i> N/A	TRANSMITTAL NO. 002
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SPECIFICATION AND SECTION NO. <i>(Cover Only One Section With Each Transmittal)</i> 200HF-GA11 Section 02 82 33.13 20 Removal/Collection Lead Paint	PROJECT TITLE AND LOCATION EMI-SL430WFB00-02 REPAIRS TO L7 PLATFORMS AND STAIRS/B2 TEST STAND
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ITEM NO. (a)	DESCRIPTION OF ITEM SUBMITTED (Type, Size, Model Number, ect.) (See Instruction No. 3) (b)	MANUFACTURER OF ITEM (See Instruction No. 8) (c)	NO. OF COPIES (d)	CONTRACT REFERENCE DOCUMENT		VARIATION (See Instruction No. 6) (g)	ACTION CODE (See Instruction No. 9) (h)
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Industrial Corrosion Control, Inc.

11130 Canal Road

P. O. Box 3689

Gulfport, MS 39505-33689

(228) 832-1526

**LEAD BASED PAINT
AND
LEAD CONTAINING PAINT REMOVAL
PLAN**

B2 TEST STAND

STENNIS SPACE CENTER B2 TEST STAND SPOT REMOVAL OF LEAD FOR DEMOLITION

1.0 WORK SCOPE

1.1 Surface Preparation

The surface preparation will be to remove lead base coating to bare metal in all areas where the metal will be cut. This will be achieved by means of vacuum shroud needle gun and chemical strip and vacuum blasting operations. The flat surfaces where the vacuum shroud can create a seal to eliminate air borne exposures will be power tooled and vacuum blast all other areas will be chemical stripped. The vacuum system for the vacuum shroud tools will be a HEPA vacuum system that will place all paint chips and dust into DOT approved labeled containers for proper disposal. The MSDS for the Piranha 2 chemical stripping agent will be submitted for approval before being brought to job site. The MSDS will be on the job site and will be reviewed with employee during the JSA Checklist. The area where the chemical strip is being utilized will be well ventilated. (the MSDS for the Piranha 2 chemical stripping agent and the Abrasive utilized during the vacuum blasting operations are attachments to this scope)

1.2 Accessing Structural Steel and Piping

The areas will be accessed by means of ladders and scaffolding. The employees will be required to be in full body harness when ever their feet are 6 feet off the deck. They will be trained in fall protection and the safe operation procedure of the ladders and scaffolding.

1.3 Controlling Lead Waste Generated and Exposure's

The lead waste that will be generated during the surface preparation of the structure will be controlled by the means of vacuum shroud. The areas being chemical stripped will be well ventilated and all waste generated will be placed in DOT approved drums that are labeled for proper disposal. The vacuum utilized will be of a HEPA vacuum system. The vacuum system will place the waste generated into DOT approved drums. The contaminated materials will be placed in DOT drums as well for proper disposals. Hand wash stations will be placed as close as possible to the work site. (data sheet for vacuum and blast system is an attachment to this plan) see section 5.0

1.4 PPE Requirements

The employee performing the surface preparation will be required to wear long sleeve tyvek coveralls as well as leather gloves. The employee will wear a half mask respirator with a protection factor of 500 PPM for lead. The worker will wear exposure pumps during surface preparation to verify exposure levels during surface preparation procedures. There will also be an exposure pump placed down wind from operation to verify the exposure levels in the work area. The operations will be adjusted to the exposure levels that are received.

1.5 Decontamination Procedures

The employee's that are performing lead removal operations will be required to wear proper PPE and upon the stoppage or completion of lead operations the will.

1. Proceed directly to the hand wash station.
2. Remove gloves and coveralls and place in proper containers that are labeled as dirty lead clothing.
3. Remove respiratory protection wipe respirator with wipes to clean and place in sealed container.
4. Wash hands and face with soap and water.
5. The hand wash station will have a gray water holding tank that can pump water in containers for disposal
6. Competent Person will be on site and enforce all aspects of lead plan.

2.0 HAZARD COMMUNICATION PROGRAM

In accordance with the Hazard Communication Rule, 29 CFR 1926.59, and to ensure the information necessary for the safe use, handling and storage of hazardous chemicals is provided and made available to employees the following is Industrial Corrosion Control's Hazard Communication (HazCom) program.

2.1 Responsibilities

2.1.1 Safety Coordinator

1. Maintain a list of hazardous chemicals in use at all projects and at company facilities.
2. Monitor the effectiveness of the program.
3. Conduct an annual audit of the program.
4. Conduct project audits for the effectiveness of the program.
5. Ensure all workers receive annual hazard communication training.
6. Ensure Material Safety Data Sheets (MSDS) are available.
7. Ensure MSDS are three years old or less.
8. Conduct weekly chemical inventory at warehouse.

2.1.2 Foreman/ Competent Person

1. Conduct site specific hazard communication training. If new chemicals are brought to a project, conduct training for the new chemical at the next safety meeting or prior to its use.
2. Ensure chemicals are properly labeled and stored.
3. Ensure that all MSDS are onsite and all workers know where they are located.
4. Create a chemical inventory for each project. Post the chemical inventory in the decontamination trailer, project postings board or other appropriate location.
5. Conduct weekly chemical inventory at project locations.

2.1.3 Employees

1. Comply with the requirements of the hazard communication program.
2. Report any chemicals not properly labeled or stored.
3. Immediately report any spills.

4. Use chemicals only for specific assigned tasks.

2.2 Chemical Hazards

1. Physical hazards can produce a dangerous situation outside the body.
2. Health hazards can damage one's health by acute and chronic exposures.

2.3 Chemical Inventory

1. The Competent Person will maintain an inventory of all known chemicals in use at the work-site. A chemical inventory list and Material Safety Data Sheets (MSDS) will be available from the Competent Person.
2. Hazardous chemicals brought onto the work site by Industrial Corrosion Control will be included on the hazardous chemical inventory list.
3. Employees who work with hazardous chemicals may request a copy of the Material Safety Data Sheets (MSDS). Requests for MSDS should be made to the site Competent Person.
4. There will be no product that has a MSDS brought on site prior to the MSDS being submitted to Harry Pepper for written approval.

3.0 CONTAINER LABELING

1. All chemicals on-site will be stored in their original or approved containers with a proper label attached; except small quantities intended for immediate use. Any container not properly labeled should be given to the foreman or competent person for proper labeling or disposal.
2. Workers may dispense chemicals from original containers only in small quantities intended for immediate use. Any chemicals left after work is completed must be returned to the original container or to the foreman or competent person for proper handling and labeling.
3. Unmarked containers of any size are not to be left unattended in the work area at any time.
4. Industrial Corrosion Control will rely on manufacturer applied labels whenever possible and will ensure the labels are maintained. Containers that are not labeled or on which the manufacturers label has been removed or destroyed will be re-labeled.
5. The foreman or competent person will ensure that each container is labeled with the identity of the hazardous chemical contained, name and address of the chemical manufacturer and any appropriate hazard warning using the appropriate MSDS and the below table.

	BLUE- HEALTH	RED FLAMMABILITY	YELLOW-REACTIVITY
4	very short exposure could cause death or major residual injury	materials which will rapidly or completely vaporize at atmospheric pressure and ambient temperature	materials which are readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures
3	short exposure could cause serious temporary or residual injury	liquids and solids that can be ignited under almost all ambient temperature conditions	materials that are capable of detonation or explosive reaction but require a strong initiating source, or that must be heated under confinement before initiation or react explosively with water

2	intense or continued exposure could cause temporary incapacitation or possible residual injury	materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur	materials that are normally unstable and readily undergo violent chemical changes but do not detonate; also materials that may react with water violently, or that may form potentially explosive mixtures with water
1	exposure would cause irritation but only minor residual injury	materials that must be preheated before ignition can occur	materials that are normally stable, but that can become unstable at elevated temperatures and pressures, or that may react with water with some release or energy but not violently
0	no hazards	materials that will not burn	materials that are normally stable even under fire explosive conditions, and that

Source of the table is the National Fire Protection A

4.0 MATERIAL SAFETY DATA SHEET (MSDS)

MSDS contain the following information:

1. Chemical Identification which states the product name, manufacturer's name and address.
2. Physical and chemical characteristics of the hazardous chemical such as vapor pressure and flash point.
3. The physical hazards of the hazardous chemical including the potential for fire, explosion and reactivity.
4. The health hazards of the hazardous chemical including signs and symptoms of exposure, medical conditions which may be aggravated by exposures to the chemical.
5. The primary route(s) of entry.
6. The OSHA Permissible Exposure Limit (PEL), ACGIH Threshold Limit Value (TLV) and any other exposure limit used or recommended by the manufacturer.
7. Safe handling procedures including hygienic practices protective measures and procedures for the clean-up of spills and leaks.
8. Control measures such as appropriate engineering controls, work practice controls or personnel protective equipment.
9. Emergency and first aid procedures.
10. The date the MSDS was prepared and the latest change made.

4.1 MSDS Date

1. MSDS will be three years old or less.
2. If a MSDS is greater than three years old, the Safety Coordinator will contact the manufacturer for a more recent MSDS.
3. If a MSDS is greater than three years old and a more recent MSDS is unavailable the Safety Coordinator will either have the MSDS faxed to show a more current date from the manufacturer or will document the date and the time of the telephone call to the manufacturer requesting a more recent MSDS.

4.2 Employee Training

Employees will be trained annually to work safely with hazardous chemicals. Employee training will include:

1. Methods that may be used to detect a release of a hazardous chemical(s) in the work place.

2. Physical properties and health hazards associated with each chemical.
3. Protective measures to be taken in order to reduce the risk of chemical exposure including safe work Practices, emergency responses and the proper use of Personal Protective Equipment (PPE).
4. The details of the Hazardous Communication Program developed by Industrial Corrosion Control.
5. How to read and interpret information on labels and the MSDS.
6. Location of the MSDS and hazard communication program.
7. Explanation of the chemical labeling system.

Site specific training will be conducted at a pre job safety meeting. If new chemical(s) are brought to a project, all workers will receive training for the new chemical(s) at the next safety meeting or prior to its use.

4.3 Emergency Response

1. Any incident, over-exposure or spill of a hazardous chemical(s) must be reported to the site Competent Person immediately.
2. The site Competent Person or foreman will be responsible for insuring that proper emergency response actions are taken in the event of a leak or spill.

4.4 Informing Other Contractors, Subcontractors and Visitors

1. Other on-site employers and/or visitors are required to adhere to the provisions of the Hazard Communication Program.
2. Information on hazardous chemicals known to be present will be exchanged with other employers or subcontractors. Each employer will be responsible for providing the necessary information to their employees.
3. Other on-site employers and/or visitors will be provided with a copy of the Hazard Communication Program.

5.0 LEAD EXPOSURE CONTROL PLAN

5.1 Potential Lead Sources and Task Evaluation

5.1.1 Potential Lead Sources

During the cleaning and painting of lead-based paint projects, several job categories may have potential exposure to lead dust. Each job category having potential exposure to lead will be subjected to initial exposure monitoring to determine if exposures are within acceptable limits, and what additional requirements, corrective measures or actions must be taken. The following is a list of typical job tasks and those which may have an exposure to lead above the Action Level.

a. Vacuum Shroud Power Tool Cleaning Operations

1. Power tool operator - uses the power tool to clean a substrate however the vacuum shroud should minimize exposure levels.
2. Equipment operator - runs the compressor and any other equipment. Should not have an exposure.
3. Vacuuming after power tool cleaning operations - cleans the inside and outside of the work area of

- any paint chips. Exposure should be minimal when using a HEP A vacuum.
4. Foreman - remains outside the work area and oversees the entire project. The foreman should not have an exposure to lead above the OSHA Action level.
 5. Competent person - remains outside the work area and oversees site safety. The competent person should not have an exposure to lead above the OSHA Action level.
 6. Quality control inspector - may be required to enter the work area during power tool cleaning operations. Inspects the substrate to verify compliance with project specifications.

b. Hand Tool Cleaning Operations

1. Workers - conduct hand tool cleaning operations.
2. Foreman - remains outside the designated work area and oversees the entire project. The foreman should not have an exposure to lead above the OSHA Action level.
3. Competent person - remains outside the designated work area and oversees site safety. The competent person should not have an exposure to lead above the OSHA Action level.
4. Quality control inspector - may be required to enter the designated work area during abrasive hand tool operations. Inspects the substrate to verify compliance with project specifications.

5.1.2 Task Evaluation

Until laboratory results of personnel samples are available, respiratory protection, personal protective equipment (PPE), change areas, hand wash facilities, biological monitoring and lead training must be provided based upon the exposure hazard of the job category as established in OSHA's 29 CFR 1926.62 Lead Standard. The following table will be used to ensure adequate respiratory protection during the initial exposure assessment.

The level of respiratory protection, the need for personal protective equipment (PPE), changes areas, hand wash facilities, biological monitoring, showers and lunchrooms will be modified based upon the results of the initial exposure assessment. The following table outlines the minimum requirements.

Exposure Level	Respiratory Protection	PWC ¹	Change Areas ²	Hand Wash Facilities ³	Showers ⁴	Lunchrooms ⁵	Biological Monitoring ⁶
<30 ug/m ³	not required	not required	not required	Yes	Not required	Not required	Not required
>30 but < 50 Ug/m ³ ug/m ³	not required	not required	not required	Yes	not required	not required	Yes
> 50 but <500 ug/m ³	1/2 face air purifying respirator with P100 filters	Yes	Yes	Yes	Yes	Yes	Yes
>500 but < 2500 ug/m ³	Full face air purifying respirator with P 100 filters	Yes	Yes	Yes	Yes	Yes	Yes

>2500 ug/m ³	Bullard CE Blast Helmet	Yes	Yes	Yes	Yes	Yes	Yes
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1. Coverall or similar frill body work clothing, gloves, hats and shoes or disposable shoe coverlets
2. Change areas equipped with separate storage facilities for PWC and equipment and for street clothes
3. Hand wash facilities must be located near the work area
4. Must be used at the end of the shift by workers exposure above the OSHA permissible exposure limit
5. Area as free as practicable from lead contamination
6. Blood lead and zinc protoporphyrin level

5.1.3 Selection Of Respiratory Protection

Job Category	Assumed Exposure Level	Respirator
Power Tool Operations without HEPA Vacuum Vacuuming after Abrasive Blast Operations Clean-up Operations Set-up and Tear down Operations	>500 but < 2500 ug/m ³	Full face air purifying respirator with P100 filters or powered air purifying respirator with P100 filters
Hand Tool Operations Support Workers outside of regulated areas Equipment Operator for black beauty operations	<50 ug/m ³	Respiratory protection is not required

5.2 Signs Of Lead Poisoning

Signs and symptoms that lead poisoning may have occurred include:

Fatigue	Sleep Problems	Clumsiness	Dizziness
Irritability	Depression	Nervousness	
Headaches	Memory Loss	Difficulty Concentrating	
Hyperactivity (in kids)	Numbness	Joint and Muscle aches	
Weakness	Wrist or Foot Drop	Loss of Appetite	
Stomach Aches	Constipation	Metal Taste in Mouth	
Problems having Healthy Children		Lead Line in Gums	

Through the implementation of engineering controls and respiratory protection, and personal protective equipment industrial Corrosion Control makes every effort to keep its workers healthy.

5.3 Action Level

An Action Level (AL) of 30 ug/m³ is the exposure to lead without regard to respirators, when the following requirements of the OSHA Lead in Construction Standard must first be implemented.

1. Written Worker Protection Plan
2. Exposure Monitoring
3. Housekeeping
4. Employee Medical Surveillance and Medical Removal Protection
5. Employee Information and Training

6. Signs and Regulated Areas
7. Record keeping

5.4 Permissible Exposure Limit

The Permissible Exposure Limit (PEL) is 50 ug/m³ averaged over 8-hours without regard to respiratory protection. When in addition to complying with the requirements identified when exceeding the Action Level, the following protective measures are required:

1. Engineering and Work Practice Controls
2. Respiratory Protection
3. Protective Clothing and Equipment
4. Hygiene Facilities and Practices

The PEL will be reduced for extended work shifts as follows: Adjusted PEL = 8hr. PEL x (8/hours worked in a day) e.g. Lead for an 8 hr shift: PEL = 50 ug/m³ Lead for a 10 hr shift: PEL = 40 ug/m³

Results of additional sampling for heavy metals during paint removal and cleaning operations or organic vapors during painting will be compared with the established Permissible Exposure Limits (PEL) in 29 CFR 1910.1000 Table Z.

5.5 Regulate Areas

Regulated areas are the areas where the exposure to lead dust is at or above the PEL and support areas are the areas not inside the regulated area. The regulated area(s) will be delineated using signs and/ or tape to prevent inadvertent contamination from leaving the work site and to minimize contamination to the workers during the work shift. Work areas include containment enclosures and all work areas involved in lead paint removal, clean-up and set-up or tear down of containment systems. The area(s) around equipment will initially not be a regulated area, unless area monitoring around the equipment indicates otherwise.

The regulated area will have access limited to workers who have received the required training, medical surveillance and are wearing the personal protective equipment required for the job they are performing, and supervisors and/or authorized visitors wearing appropriate clothing and/or protective equipment. No food, beverages or tobacco products are to be present or consumed in the work area.

Initially the support area will be a minimum of five feet from the work area. This is based upon several years of area monitoring around containment. The regulated area may be moved closer or further from the work area if initial or periodic monitoring indicates the need for a change.

5.6 Signs

Signs will be used to identify the areas where exposures could exceed the Action Level (the OSHA Lead Standard states the signs are above the PEL, use of the Action Level will minimize exposures to outside personnel) Signs will read as follows:

WARNING
LEAD WORK AREA
POISON
NO EATING OR SMOKING

5.7 Decontamination Facilities

5.7.1 Showers

5.7.2 Hand Wash Facilities

Hand wash stations will be located between the regulated and break area located in the Support Area. Hands and face must be washed before eating, drinking or smoking.

5.8 Lunch Facility

Lunch facilities will be set up in a clean area near the work area, away from all sources of contamination.

5.9 Protective Work Clothing (PWC)

Disposable coveralls will not be used as the sole means of PWC if such garments are likely to become torn or fall apart under normal use. In these cases cloth coveralls or similar PWC will be used.

5.10 Laundering Of Work Clothing

5.1.1 Housekeeping

All work areas will be maintained as free as practical of accumulation of lead dust. In order to minimize the likelihood of dust becoming airborne, cleaning will be conducted daily in all work areas using a vacuum equipped with a HEPA filter or by wet cleaning.

5.12 Exposure Monitoring

Exposure monitoring is essential to identifying the need for proper industrial hygiene controls at the job site. Air sampling will be conducted in the worker's breathing zone (six to nine inches from the nose and mouth) to determine actual worker exposures and recommend respiratory protection that is adequate for those levels.

5.12.1 Personnel Air Sampling

Initial air sampling will be conducted to represent actual worker exposures to lead in each job category. Sampling will be conducted on multiple individuals performing the same job category. Sampling will be conducted for a full work shift, minimally 7 hours. If initial exposure monitoring results are above the PEL, then every three months additional air samples will be taken to verify worker exposure levels, the adequacy of engineering controls, and determine if personal protective equipment is adequate.

If the initial results are above the Action Level (AL), then additional sampling will be conducted every six months. If the initial results are below the Action Level then additional exposure monitoring is not required. Additional air samples will be taken whenever site conditions change from those observed during the initial exposure monitoring, equipment or process changes, a significant change in the workforce, or at different structures.

Air samples will be collected and analyzed in accordance with appropriate NIOSH Methods. The laboratory used to analyze the samples will have current accreditation by the American Industrial Hygiene Association (ATHA). In addition, some states require additional accreditations such as by the state department of health.

Employees and other workers in the same job category will be notified in writing of the monitoring results within five (5) days after receiving results.

5.12.2 Area Monitoring

1. The purpose of the regulated (the area where a worker may be exposed to lead above the OSHA PEL) area is to ensure that unprotected personnel are not permitted access to areas where the airborne exposures are above the designated Action Level (30 ug/m for lead).
2. Job categories and/or areas that may generate airborne hazardous material emissions include paint removal activities, dust collection systems, abrasive vacuum systems and waste storage areas.

5.12.3 Observation of Monitoring

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures in accordance with 29 CFR 1926.62 (o). The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of lead and receive copies of the results when returned from the laboratory.

5.12.4 Record Keeping

Detailed records of the exposure will be in compliance with 29 CFR 1926.62 (n) as given below. All personal air sampling results will be maintained by Industrial Corrosion Control or its subcontractors for at least 30 years.

1. The date(s), number, duration, location and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
2. A description of the sampling and analytical methods used and evidence of their accuracy.
3. The type of respiratory protective devices worn.
4. Name, social security number, and job category of the employee monitored and all other employees whose exposure the measurement is intended to represent.
5. The environmental variables that could affect the measurement of employee exposure.

5.13 Engineering Controls

All feasible engineering controls will be used to minimize lead dust exposure. Additional control measures

may be implemented based on the results of air monitoring once the project begins. The following engineering controls will be used.

Job Task	Control Methods
Chemical Stripping	½ mask respirator, chemical glove, splash goggles and tyvek coveralls and adequate ventilation
Water Jetting Operations	Water Dust collector may be required based upon containment type
Power tool cleaning	HEPA vacuums
Hand tool cleaning	Wet misting
Clean up after paint removal	HEPA vacuums
Painting	adequate ventilation using windows and/ or a dust collector and ½ mask respirator

Engineering controls selected above are the industry standards, when new technology is produced that would reduce worker exposures and costs; Industrial Corrosion Control will evaluate that method or will seek others in the industry for their evaluation. In addition, this specification requires the use of abrasive material for cleaning the structures. Additional control measures will be re-evaluated if exposures are found to exceed the protection factor of respiratory protection normally used for this type of work.

5.14 Administrative Controls

Job rotation on a lead abatement project typically is not feasible due to the limited amount of qualified personnel. However, Industrial Corrosion Control will implement work practice controls including but not limited to: hygiene facilities, personal protective clothing and respiratory protection.

5.15 Respiratory Protection

Prior to wearing a respirator, employees must comply with Section B 2.0 of this Health and safety Plan and the OSHA Respirator Standard 29 CFR 1910.134. Respirators will be selected in accordance with the following^B table.

Airborne concentration of lead	Required respirator
500 ug/m ³ or less	Half-face air purifying respirator with P100 HEPA filters
1,250 ug/m ³ or less	Hood or helmet supplied air respirator operating in the continuous flow mode
2,500 ug/m ³ or less	Full face piece air purifying respirator with P100 HEPA filters
50,000 ug/m ³ or less	Approved Type CE abrasive blasting helmet such as Bullard CE 88

100,000 ug/m ³ or less	<ol style="list-style-type: none"> 1. Full face piece supplied air respirator operated in pressure demand or other positive pressure mode 2. Type CE abrasive blasting helmet operated in a positive pressure mode
100,000 ug/m ³ or more or unknown concentration	<ol style="list-style-type: none"> 1. Full face piece SCBA operated in the pressure demand or other positive pressure mode

Where a worker is required to enter into the dust collector recycle or roll-off to either move dust and debris around or to remove the dust and debris, the competent person will ensure the worker is wearing the proper personal protective clothing including respiratory protection and where applicable follows confined space procedures.

1. Entering the dust collector to remove or clean out debris, workers will wear a supplied air respirator that provides protection up to 50,000 ug/m³.
2. Entering the dust collector section of a recycler unit to remove or clean out debris, workers will wear a supplied air respirator that provides protection up to 50,000 ug/m³.
3. Entering a roll-off to move used black beauty from one side to the other, workers will wear a respirator that provides protection up to 2,500 ug/m³.

5.16 Medical Surveillance Program

As a condition of employment with Industrial Corrosion Control, all workers exposed to lead at or above the OSHA Action Level are required to enter the medical surveillance program to reveal medical conditions which could predispose an individual to excessive risk from working on this job and provide clearance to wear a negative-pressure respirator. **(ICCI does not expect to reach the action level during this process)**

5.16.1 Program Elements

The program elements listed below are for exposures above the Action Level to lead; additional testing may be required if exposed to other toxic metals.

1. Each worker must have a baseline examination within one year prior to commencing work.
2. Each worker must have blood testing for lead and zinc protoporphyrin before starting a new project, unless a previous blood test was completed within 60 days prior to starting a new project.
3. After initial testing, bi-monthly testing will be conducted for the first six months and semi-annual thereafter. However, the typical work season is less than ten months; therefore, Venus Painting Company may continue bi-monthly testing for the duration of the work season.
4. Blood lead testing will be performed by an OSHA approved laboratory.
5. When blood testing reveals 50 micrograms of lead per deciliter of whole blood or more, and that level does not decrease upon subsequent testing within two weeks, that worker will be removed from Industrial Corrosion Control projects until two consecutive blood tests result in levels below 40 ug/dl.
6. Whenever blood testing reveals 40 ug/dl or greater of lead in whole blood, workers will be offered a medical evaluation, be retrained, and reminded about medical removal protection. PPE will be upgraded if necessary to provide a higher level of protection.
7. Each worker must receive authorization from a physician or other licensed health care professional (PLHCP) for wearing respiratory protection. The authorization will be maintained by Elite Contractors in the employee's file.
8. The OSHA Medical Removal Program (MRP) is for workers who have a blood lead level of 50 ug/ dl

after two tests within two weeks.

9. Post employment or yearly physical examinations, as outlined for baseline exams, will be provided for all workers whose blood levels at any time during the duration of the job reaches or exceeds 40 ug/dl whole blood.
10. Workers are allowed to request another physician to review the findings (multiple physician review) or to have another physician conduct examinations. The physician must have knowledge about lead exposures.

5.16.2 Exit Medical Examination

Workers will be offered an exit medical examination consisting of a blood lead level and zinc protoporphyrin and a physical within five days of exiting a project or during extended project shut downs. All offers will be made either at the job site, mailed via certified mail with return receipt or sent with employee paychecks.

5.16.3 Notification Of Workers

All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within five working days after Industrial Corrosion Control has received the results.

Notification will be completed by the worker signing the original medical result form or the employee notification of biological monitoring results form. The signed form will be maintained in the workers records.

5.16.4 Record Keeping

Medical records will be maintained for the duration of employment plus 30 years, or a total of 30 years, whichever is longer. Workers or their appointed representatives will be able to access those records upon written request to Industrial Corrosion Control. Access will be provided within 15 days after the employee's request, unless Industrial Corrosion Control states the reason for the delay and the earliest date when the records will be made available. Those records will include but not be limited to the following items:

1. Name, social security number and job description.
2. Copy of physician's written opinion, including clearance to wear a respirator.
3. Results of exposure monitoring and medical testing and examinations.
4. Records of medical complaints related to lead exposure.

If an individual worker is removed from exposure to lead, the following records will be kept as well:

1. Date of each occasion that the individual was removed from exposure, and returned to work.
2. A brief explanation of how each removal was or is being accomplished.
3. A statement indicating the reason for removal and blood level results.
- 4.

5.17 Training for Lead

All workers must be trained prior to starting any project where the exposures will be above the OSHA Action Level for lead in the hazards of lead. Signed and dated training records will be required stating that each worker has received the training. Copies of the OSHA Lead Standard and the site specific Health and Safety Plan

will be made available to all workers. Training will include:

- a. The OSHA Lead Standard 29 CFR 1926.62
 1. Health Effects Of Exposure To Lead
 2. Routes Of Exposure
 3. Personal Protective Equipment
 4. Personal Hygiene & Decontamination
 5. Medical Surveillance And Removal Programs
 6. Exposure Monitoring
 7. Engineering Controls And Work Practice
 8. Information Regarding Chelating Agents
 9. Employee Rights To Information
- b. The Health And Safety Plan
- c. Hazardous Waste Procedures (40 CFR 265.16)
- d. Emergency Response
- e. The OSHA Hazard Communication Standard 29 CFR 1926.59
- f. Respiratory Protection Program 29 CFR 1910.134
- g. Basic *Safety* And Health Training 29 CFR 1926.21