

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Perform all planning, administration, execution, and cleaning necessary to safely remove heavy metal containing materials or laboratory sink traps as indicated on the Work Order.
- B. The procedures employed by the Contractor shall not create the potential for contaminating surrounding areas or materials with paints or materials containing heavy metals. Dust generation will be kept to a minimum. Dry scraping, dry sanding or dry grinding on heavy Metal containing materials will not be permitted without a full enclosure.
- C. This Section addresses heavy metal containing materials such as ceramic tile, lead lined walls, paints, and coatings, heavy metal containing brick or mortars, and mercury-containing materials such as laboratory sink traps.

1.2 RELATED WORK

- 1. Section 02 80 00 "Facilities Remediation"
- 2. Section 02 82 00 "Asbestos Abatement"
- 3. Section 02 84 00 "PCB and Mercury Lamp Removal"
- 4. Section 02 85 00 "Fugitive and Silica Dust Control Procedures"
- 5. Section 02 86 00 "PCB Containing Bulk Materials Removal"
- 6. Section 02 87 00 "Water Loss Response"
- 7. Section 02 88 00 "Biological Contaminants"
- 8. JOC Abatement Design Scope for this Work Order

1.3 WORK INCLUDED

- A. Remove and containerize Heavy Metal containing materials as specified in the Work Order.
- B. The Contractor shall remove, segregate and package of waste, and properly dispose of all dust, removed material, disposable protective equipment, cleaning rags, wash water, and any other materials contaminated with dust from these painted surfaces or materials in accordance with Ecology regulations for general construction debris. TCLP samples and analysis shall be taken by the Owner prior to actual disposal.
- C. The Contractor, in the course of Work, shall be aware that materials containing Heavy Metals exist on some of the surfaces included under the Work of this Contract and conduct activities to minimize dust generation.
- D. The Contractor shall assume full responsibility and liability for compliance with all federal, state, and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to site, building occupants in areas adjacent to Work Areas.
- E. Handling: Conduct activities involving lead-containing paint and materials and heavy metal containing materials under Work of this Contract in accordance with this Section and current applicable state and federal regulations including WAC 296-155, WAC 296-62, WAC 296-62-

07521: "Lead"; WAC 296-155-176: "Occupational Health and Environmental Control"; and 29 CFR 1926.62: "Lead Exposure in Construction - Interim Final Rule".

- F. Waste Disposal: Disposal of general construction debris. Owner will be responsible for waste designated as "dangerous" according to WAC 173-303 related to heavy metals.
- G. Monitoring: Monitoring of airborne concentrations of lead and other heavy metals in accordance with WAC 296-62, WAC 296-155-176 and this Section. The intent of this Section is to reduce and maintain employee exposure to lead, other heavy metals, and surrounding airborne concentrations at or below the permissible exposure limit.

1.4 WORK NOT INCLUDED

- A. Replacement of removed paint, coating or material, unless indicated on the Work Order.
- B. Area air monitoring as this will be performed by the Environmental Consultant, as needed. However, Contractor is still responsible to perform personnel air monitoring for the safety of its employees.
- C. The Owner will perform TCLP Testing.
- D. Disposal of waste designated as hazardous or dangerous waste.

1.5 QUALITY CRITERIA

- A. Use properly trained and experienced workers to perform the removal of paint containing lead or activities which will disturb heavy metal containing materials.

1.6 SUBMITTALS

- A. Submit the items listed below in accordance with Section 01 33 00 - Submittals. Submit the following "Pre-Work Submittals" prior to start of Work. The Work may not proceed until complete Pre-Work Submittal package has been reviewed by the Environmental Consultant and Owner. Allow ten working days in schedule for review.
 - 1. Lead and other Heavy Metals Compliance Program: Submit a site-specific lead and other heavy metals compliance program in accordance with WAC Chapters 296-155 and 296-62. The program shall be developed and implemented to provide engineering, work practice and administrative controls to reduce and maintain employee exposure to lead and other heavy metals at or below the permissible exposure limit. The plan will include at a minimum: task-specific descriptions of activities; controls; personnel; procedures; method of compliance; technology used to meet compliance; air monitoring plan; detailed schedule; work practice program; administrative controls and other relevant information. Implementation of work practices not described in the Compliance Plan will not be permitted until the Environmental Consultant and Owner review an amendment to the submittal.
 - 2. Medical Program: Submit written proof medical exam program is in compliance with OSHA Lead Regulations 29 CFR 1926.62 and WAC Chapters 296-155 and 296-62. Initial medical surveillance consisting of biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin levels shall be submitted for each employee occupationally exposed to lead at or above the action level.
 - 3. Worker Training Program: Submit written proof indicating that all employees impacting lead and heavy metal containing materials have received training per 29 CFR 1926.62

and WAC Chapters 296-155 and 296-62. Proof shall include a signature from the Contractor's Principal indicating that all employees performing heavy metals-related activities have completed such a program.

4. Respirator Program: Submit written proof indicating respirator program is in compliance with all parts of OSHA Lead Regulations 29 CFR 1910.134 and 1926.62, and WAC Chapters 296-155 296-62.
5. Waste Stream Calculations: Submit a detailed breakdown of waste stream constituents and associated volumetric calculations for review by the Owner and Environmental Consultant to determine the need for additional waste stream calculation or characterization.

B. Final Submittals:

1. Project Record Documents: Provide record of heavy metal control activities including disposition of each type of heavy metal-containing item removed from the site.
2. Air Monitoring: Submit copies of all air monitoring data (including sample data sheets), chain-of-custody documentation and calibration records related to the initial exposure assessment for workers impacting heavy metals containing materials.
3. Recycling: Submit completed manifests and bills-of-lading for any metal recycled as lead or heavy metals containing.
4. Disposal: Submit waste manifests and bills-of-lading for any lead or heavy metal contaminated waste classified as non-dangerous or hazardous at an Owner-approved Subtitle D facility.

1.7 PERSONAL AIR MONITORING

- A. Testing Laboratory: An Independent Testing Laboratory shall be retained by the Contractor for all lead and heavy metal air analysis. All exposure monitoring analysis shall be performed in accordance with 29 CFR Part 1926.62 and WAC Chapters 296-155 296-62. The laboratory must participate in the ELPAT Program and AIHA's PAT program. Air sample collection may be performed by an Industrial Hygienist or the Contractor's trained supervisor at the Contractor's option.
- B. Sample Documentation: Documentation shall be kept for each filter sample procured as to worker sampled, activity, Work Area location, date and time taken, volume of air drawn through filter, pump identification number and calibration. Documentation shall indicate in what areas tests were taken and shall clearly indicate the specified maximum allowable levels for each area tested. Report all data. Complete laboratory chain-of-custody records.
- C. Analysis Procedures: The samples shall be collected on 37 mm filters and analyzed within 24 hours using NIOSH Analytical Method No. 7105 or 7082 for lead and applicable NIOSH methods for other heavy metals. The containers shall be clearly labeled with project name and Sample Number and shall become property of the Owner at Work completion at the Owner's request.
- D. Contractor's Sampling During lead and other heavy metal related activities:
 1. Initial exposure: the Contractor shall perform exposure monitoring during impact of representative lead-painted building components per WAC 296-155 and WAC 296-62.
 2. Most Contaminated Worker: The Contractor shall determine which worker(s) in each work area is probably experiencing the most severe exposure. This is the "Most Contaminated Worker(s)". 8-hour TWA samples shall be collected on this worker(s).

Worker shall wear a personal sampling pump and the sample shall be drawn from the breathing zone of this worker.

3. Number of samples: The number of air samples collected shall be as defined in the approved Lead and Heavy Metals Compliance Program. Historical measurements per WAC 296-155 and WAC 296-62 may be used to satisfy continuing exposure assessment requirements.

E. Work Area Monitoring

1. Monitoring: The Owner reserves the right to monitor Contractor's performance via air, dust wipe and TCLP samples during lead and other heavy metals related activities, in addition to the Contractor's exposure monitoring and testing. Sampling by the Owner will not be available for use as the Contractor's Initial Exposure Assessment.
2. Quality Control
 - a. Maximum allowable airborne concentrations: Contractor shall ensure that at all times airborne concentrations of lead and other heavy metals outside work areas are maintained at or below the Action Levels listed in the definitions and applicable regulations.
 - b. Immediately upon being notified of concentrations exceeding the specified maximum allowable levels, the Contractor shall perform the following steps in the order presented, at no additional cost to the Owner: Stop lead related activities work, identify source of high lead concentrations, develop plan with the Environmental Consultant and Owner to complete lead related activities in a manner to prevent visible emissions and elevated lead and other heavy metals levels.

1.8 SUBCONTRACTORS

- A. Subcontractors employed by the Contractor shall be bound to all the work and safety standards specified herein. Subcontractor's personnel shall meet all requirements as specified herein, and shall be supervised by the Contractor during performance of any work related to this section.

1.9 DEFINITIONS

- A. Definitions relative to heavy metal related activities:
 1. Abate/Abatement: Shall mean the appropriate removal of lead or heavy metal containing materials followed by thorough cleaning.
 2. Accuracy: The degree to which a measurement process determines a known amount of lead or other component in a particular reference.
 3. Action Level: Shall mean employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30 $\mu\text{g}/\text{m}^3$) calculated as an 8-hour time-weighted average (TWA) or other heavy metals listed in WAC 296-62.
 4. Administrative Removal: The temporary removal of workers prior to their reaching blood lead levels requiring medical removal in order to provide additional protection to both workers and employers.

5. Baseline: Blood lead level screening and zinc protoporphyrin levels recorded within 30 calendar days of the worker starting this project.
6. Biennial Report: A report (EPA Form 8700-13A) submitted by generators of hazardous waste to the Regional Administrator due March 1 of each even-numbered year. The report includes information on the generator's activities during the previous calendar year. The Owner or operator of a treatment, storage and disposal facility must also prepare and submit a biennial report using EPA Form 8700-1313.
7. Biological Monitoring: All workers must have baseline and post abatement blood lead level screening determined by whole blood lead method, utilizing Vena-Puncture technique. Samples shall be analyzed by NIOSH Method 8003 or other method acceptable to regulatory agencies having jurisdiction. Contractor shall have a physical performed on each employee. The blood tests shall consist of analysis for lead and zinc protoporphyrin levels and shall be conducted by a laboratory approved by OSHA.
8. Characteristics: EPA has identified four characteristics of hazardous waste: (a) Ignitability; (b) Corrosivity; (c) Reactivity, and (d) EP Toxicity. Any solid waste that exhibits one or more of these characteristics is classified as a hazardous waste under RCRA.
9. Child/Children: Shall mean a person under the age of six.
10. Discharge or Hazardous Waste Discharge: The accidental or intentional spilling of hazardous waste including the leaking, pumping, pouring, emitting, discharge emptying or dumping of hazardous wastes onto any land or water.
11. Elevated Blood Lead (EBL): Shall mean excessive absorption of lead in the blood in concentrations defined as an elevated blood level in children by the Centers for Disease Control (CDC) of the United States Department of Health and Human Services.
12. EP Toxicity: A test, called the extraction procedure, which is designed to identify wastes likely to leach hazardous concentrations of particular toxic constituents into the ground water as a result of improper management. It is characteristic of hazardous waste. See TCLP.
13. EPA Identification: The unique number assigned by EPA to each generator or transporter of hazardous waste and each treatment, storage or disposal facility.
14. Generator: Any person who first creates a hazardous waste or a person who first makes the waste subject to the Subtitle C regulation (e.g., imports a hazardous waste, initiates a shipment of hazardous waste from a TSD or mixes hazardous waste of different DOT shipping descriptions by placing them into a single container).
15. Hazardous and Dangerous Waste: As defined in RCRA, the term "hazardous waste" means a solid waste or combination of solid wastes which, because of its quantity, concentration or physical, chemical or infectious characteristics, may:
 - a. cause, or significantly contribute to any increase in mortality or an increase in serious irreversible or incapacitating reversible ill, or;
 - b. pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed;
 - c. be as described in the regulations, under one of the following four conditions:
 - 1) exhibits a characteristic of a hazardous waste (40 CFR Sections 261.20 through 261.33).

- 2) has been listed as hazardous (40 CFR Section 261.31 through 261.33).
 - 3) is a mixture containing a listed hazardous waste and a non-regulated solid waste (unless the mixture is specifically excluded or no longer exhibits any of the characteristics of hazardous waste).
 - 4) is not excluded from regulation as a hazardous waste.
16. Heavy metals: Shall consist of the following RCRA 8 metals: arsenic, barium, cadmium, chromium, mercury, lead, selenium, and silver.
17. Lead Awareness Training: Shall, at a minimum, consist of the following:
 - a. The content of the WAC Chapter 296-155 and its appendices;
 - b. The specific nature of the operations which could result in exposure to lead above the action level;
 - c. The purpose, proper selection, fitting, use, and limitations of respirators;
 - d. The purpose and a description of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead (with particular attention to the adverse reproductive effects on both males and females and hazards to the fetus and additional precautions for employees who are pregnant);
 - e. The engineering and work practices associated with the employee's job assignment including training of employees to follow relevant good work practices described in the WAC Chapter 296-155, Appendix B;
 - f. The contents of any compliance plan in effect;
 - g. Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician;
 - h. The employee's right of access to records under the WAC Chapter 296-155, Part B.
18. Lead-Based Paint: Shall mean paint, varnish, shellac or similar coating containing more than 0.5 percent of lead by weight in the final dried solid.
19. Lead-Containing Paint Violation: Shall mean (a) the violation of any state or local law or regulation concerning lead-containing paint, or (b) the presence of lead-containing paint on the interior or exterior surfaces of any property or on any toy, appliance, item of furniture or other household item that is easily accessible to a child; or that is cracking, peeling, chipping, blistering or flaking or is in an otherwise deteriorated condition; or that is chalking so that lead dust generated there from is determined to pose a health hazard; or that is present on surfaces defined as woodwork or wood trim.
20. Lead-Containing Paint: Shall mean paint, varnish, shellac or similar coating containing more than the analytical detection limit of lead by weight in the final dried solid.
21. Lead Dust: Shall mean dust that contains lead generated by the deterioration of paint that contains lead or by environmental factors.
22. Listed: Hazardous wastes that have been placed on one of three lists developed by EPA: (a) Non-specific source wastes, (b) Specific source wastes, and (c) Commercial chemical products. These lists were developed by examining different types of waste and chemical

- products to see if they exhibit one of the four characteristics, meet the statutory definition of hazardous waste, are acutely toxic or acutely hazardous, or are otherwise toxic.
23. Manifest: The shipping document, EPA form 8700-22, used for identifying the quantity, composition, origin, routing and destination of hazardous waste during its transportation from the point of generation to the point of treatment, storage or disposal.
 24. Medical Removal: The temporary removal of workers due to elevated blood lead levels as defined in these guidelines.
 25. Paint Removal: A strategy of abatement that entails stripping lead and other heavy metals containing paint from surfaces.
 26. Permit: An authorization, license or equivalent control document issued by EPA or an authorized state to implement the regulatory requirements of Subtitle C Parts 264 and 265 for TSD's.
 27. Personal Samples (for sampling lead dust): Air samples collected within the breathing zone of a worker, but outside the respirator. The samples are collected with a personal sampling pump, pulling one to four liters per minute of air.
 28. RCRA, Resource Conservation and Recovery Act of 1976: What we commonly refer to, as RCRA is an amendment to the Solid Waste Disposal Act of 1965. RCRA was amended in 1980 and most recently on November 8, 1984.
 29. Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.
 30. Small Quantity: A generator who produces less than 100 kg of hazardous waste per month (or accumulates less than 100 kg at any one time) or one who produces less than 1 kg of acutely hazardous waste per month (or accumulates less than 1 kg of acutely hazardous waste at any one time).
 31. Solid Waste: As defined in RCRA, the term "solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment or air pollution control facility or discarded material, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operations and from community activities, but does not include solid or dissolved material in domestic sewage or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under the Clean Water Act, or special nuclear or byproduct material as defined by the Atomic Energy Act of 1954.
 32. Storage: The holding of hazardous waste for a temporary period at the end of which the hazardous waste is treated, disposed of or stored elsewhere.
 33. TCLP, Toxic Characteristic Leaching Procedure (EPA Method 1311): See EP Toxicity.
 34. Transporter: Any persons engaged in the off-site transportation of hazardous waste within the United States by air, rail, highway or water, if such transportation requires a manifest under 40 CFR Part 262.
 35. Treatment: Any method, technique or process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize it or render it non-hazardous or less hazardous, or to recover it, make it safer to transport, store or dispose of, or amenable for recovery, storage or volume reduction.
 36. TSD: Acronym for treatment, storage and disposal in hazardous waste facility.

37. μg, Micrograms: The prefix “micro” means 1/1,000,000 of (one millionth of). A microgram is 1/1,000,000 of a gram.

PART 2 - PRODUCTS

2.1 PERSONAL PROTECTIVE EQUIPMENT

- A. Provide Personal Protective Equipment, at a minimum as follows:
 - 1. Half-face respirator for use during the performance of the Work Order.
 - 2. Gloves: neoprene rubber gloves for workers. Dispose of gloves with waste upon completion of the Work Order.
 - 3. Protective Eyewear: face shields, vented goggles and other protective eyewear as necessary for the performance of the Work Order.
 - 4. Protective clothing - Work clothes shall consist of disposable full-body coveralls, head covers, boots, rubber gloves or equivalent. Sleeves at wrists and cuffs at ankles shall be secured.
 - 5. Hard hats suitable for respirator wear.

2.2 MATERIALS

- A. Provide filter fabric for ground coverage.
- B. Polyethylene Sheet: Provide flame-retardant polyethylene film that conforms to requirements set forth by the NFPA Standard 701 (Small Scale Fire Test for Retardant Textiles and Films). Provide 6-mil thick, frosted or black TRM Manufacturing Brand, or equivalent, of the largest size practicable to minimize seams.
- C. Reinforced Polyethylene Sheet: Provide translucent, nylon reinforced, laminated, flame-retardant polyethylene film that conforms to requirements set forth by NFPA Standard 701. Provide 6-mil thick Permalon Brand, or equivalent, of the largest size practicable to minimize seams.
- D. Duct Tape: Provide duct tape with an adhesive that is formulated to stick securely to sheet polyethylene, Nashua Brand or equivalent. Do not use polyethylene tape.
- E. Provide 20-inch by 14-inch warning signs surrounding the Work Area, reading as follows for lead:

WARNING
LEAD OR HEAVY METAL WORK AREA
POISON
NO SMOKING OR EATING

2.3 EQUIPMENT

- A. Water Sprayer: Airless or other low pressure sprayer for amended water application.
- B. HEPA Vacuums: They shall comply with ANSI Z9.2-2012.
- C. Provide power tools that are HEPA shrouded.

- D. Hand tools: Provide scrapers, stiff nylon bristle hand brush and other suitable hand tools for this work.

PART 3 - EXECUTION

3.1 SEQUENCE OF WORK

- A. Carry out Work of this part sequentially. Complete each activity before proceeding to the next.

3.2 GENERAL

- A. Place all tools, staging, etc. necessary for the Work Order in the Work Area.
- B. Establish washdown station in building for workers. Waste water shall be filtered to 5.0 microns prior to discharge into Owner provided waste drums.
- C. Permit access to the Work Area through a central entrance. All other means of access shall be closed and sealed. Warning signs shall be displayed on the clean side of the sealed access.
- D. Demarcate area as needed with warning signs.
- E. Construct mini-enclosure in accordance with Section 02 82 00, except do not place polyethylene sheeting on area of Work. Use mini-enclosure for Work that is less than 160 square feet.
- F. Construct full enclosure in accordance with Section 02 82 00, except do not place polyethylene sheeting on area of Work. Use full enclosure for Work that is greater than 160 square feet.
- G. Install a drop cloth using 6-mil fire retardant polyethylene sheeting.
- H. Install HEPA-equipped negative air machines to scrub the air.
- I. Notify Environmental Consultant for observation and acceptance of personnel decontamination unit, HEPA filtration systems, and containment structure before proceeding with Work.

3.3 HEAVY METAL CONTAINING MATERIAL REMOVAL

- A. Remove and properly dispose of all heavy metal containing materials as indicated in the Work Order in accordance with federal, state, and local regulations or as more stringently specified herein.
- B. Prepare Work Area as previously specified.
- C. Housekeeping: Maintain all surfaces as free as practicable of accumulations of heavy metals and perform clean-up of work areas as necessary according to WAC 296-155-17617.
- D. Work Practices:
 - 1. Workers shall don appropriate protective gear.
 - 2. Perform work impacting heavy metal-containing paints and components in accordance with approved work plan.
 - 3. Use procedures and equipment required to limit occupational and environmental exposure to heavy metals when heavy metal containing materials are impacted. The procedures employed by the Contractor shall not create the potential for contaminating surrounding areas or materials with heavy metal containing dust. Dust generation shall be minimized at all times by employing wet methods.

4. At completion of the above operations, HEPA vacuum to remove any paint particles or debris. Wet-wipe to remove all dust.
 5. For exterior work, grounds shall be protected with installation of filter fabric and where necessary polyethylene sheeting drop cloths. Dust shall be controlled at all times by use of wet methods and HEPA vacuum attachments to equipment. Where necessary install wind screens to reduce the chances of dust being spread.
 6. Capture and filter water runoff from parking lot area with use of spill pillows and socks and wet/dry HEPA vacuums. Cover storm drains with water filters as a secondary measure.
 7. Visible emissions will be grounds for Environmental Consultant or Owner to request that work practices be stopped and revised.
 8. Upon establishing negative exposure assessment, lead signs do not have to be posted and personal protective gear may be downgraded.
- E. Contact Environmental Consultant for final observation when all material has been removed. Re-clean areas as indicated by Environmental Consultant.

3.4 REMOVAL AND PACKAGING OF ITEMS FOR MERCURY CONTAINING MATERIALS

- A. The Work shall be performed in accordance with Washington State Department of Ecology regulations, EPA regulations, and this specification.
- B. Perform removal of mercury-contaminated items. The Work Area shall be labeled in compliance with regulations. Labels shall be posted at the entrance to the Work Area.
- C. Contain the area with polyethylene sheeting, as necessary to prevent contamination from spreading to other parts of the building if addressing a mercury spill.
- D. Removal of sink traps shall be performed as follows:
 1. Remove sink traps and piping with hand tools.
 2. Insert two disposal bags in container to form a liner.
 3. Place contents of sink traps and other mercury-contaminated items in each impermeable container in layers. Containers shall be labeled with Hazardous Waste label. Do not store wastes that could react to cause fire, leaks or other releases in same container.
- E. If mercury is discovered during Work, Contractor shall stop work, notify the Owner and secure the area for cleanup by the Owner.
- F. Record the number of drums and the contents and label as such with the date. Provide documentation to the Owner and the Environmental Consultant.
- G. In case of a spill or injuries, the Owner shall be contacted immediately. Also in case of an emergency the University of Washington Police Department and City of Seattle Fire Department can be contacted by calling 9-911 from any campus phone.

3.5 SEPARATION OF WASTE MATERIAL INTO WASTE STREAMS

- A. All unsalvageable contaminated materials shall be packaged in accordance with this section.

- B. Waste materials shall be separated into separate waste streams according to the following:
1. Heavy metal containing items or contaminated materials, paint chips, dust, HEPA-vacuum filters, and bags, shall be placed in a disposal drum in accordance with this section. These shall compose the first waste stream.
 2. All polyethylene sheeting, disposable suits, HEPA respirator cartridges, and rags used for cleaning shall be placed into approved containers according to this section. These shall compose the second waste stream.
 3. Waste water from personnel decontamination and cleaning process shall be placed into a disposal drum according to this section. This shall compose the third waste stream. This water shall be filtered to remove paint and debris chips and then stored in drums for testing.
 4. Sink traps and contents from sink traps shall be placed in a disposal drum in accordance with this section. This shall compose the fourth waste stream.
- C. The Owner or the Environmental Consultant shall collect representative samples from each waste stream and submit these samples for TCLP and heavy metal in water testing. The Owner assumes the sink traps is hazardous waste and samples are not collected.

3.6 HAZARDOUS WASTE TEMPORARY STORAGE

- A. Provide securable area pre-approved by the Owner and Environmental Consultant for the temporary storage of all solid, hazardous or contaminated wastes and wastewater generated during the performance of the Work Order.
- B. The purpose of this temporary storage is to allow the Contractor to accumulate enough drums of waste so that the Waste Hauler may pick up full loads of waste from the site.
- C. Employ spill protection materials to protect against spillage or leaks in temporary storage area.
- D. Contractor shall use precautions necessary to minimize the generation of hazardous, or contaminated waste.
- E. Place all hazardous and potentially hazardous waste in drums lined with two polyethylene bags.
- F. Do not store wastes that could react to cause fire, leaks or other releases in same container.
- G. Each drum shall be clearly labeled as to its exact contents, including the date when the drum was sealed.
- H. Store all solid and hazardous waste with drum lids on wooden pallets at site until disposal provisions have been determined. Use drum lid covers on all drums to prevent accumulation of water on top of drums. Contractor shall place temporary fencing around stored drums.
- I. Store all solid, hazardous, and liquid waste in full compliance with federal, state, and local requirements and do not allow hazardous waste generated by a Work Order to be stored at the site for more than 90 days.
- J. Inspect containers for leaks or corrosion every week and keep written records of inspections on site in accordance with WAC 173-303-320.

3.7 WASTE DISPOSAL

- A. If the waste is classified as dangerous/hazardous waste by TCLP test results, the Owner will dispose of the waste.

B. Contractor shall label the waste for the Owner as follows:

1. Package and label all waste for transport in accordance with the United States DOT regulations on packaging.
2. In addition to the requirements set forth in United States DOT 49 CFR 172.304, mark each package containing dangerous/hazardous waste with the following, words and information:

"HAZARDOUS WASTE - State and federal law prohibits improper disposal. If found, contact the nearest police or public safety authority, and the Washington State Department of Ecology or the United States Environmental Protection Agency.

Generator's Name and Address

Manifest Document Number

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3. The Contractor shall placard or offer to the Owner all appropriate placards in accordance with United States DOT regulations, 49 CFR Part 172, Subpart F.

3.8 FIELD QUALITY CONTROL

- A. Environmental Consultant shall conduct air monitoring throughout the removal and cleaning operations, as needed.
- B. Environmental Consultant shall conduct air monitoring as follows:
 1. Daily Work Area air samples for lead and other metals, as necessary.
 2. Outside ambient monitoring for lead and other metals, as necessary.
- C. Lead and other metals dust levels as determined by Environmental Consultant.
- D. Debris Testing: A representative sample from debris shall be collected for TCLP testing by the Environmental Consultant. The method/location of disposal will be established by test results. The UW Environmental Programs Office shall make all determinations regarding waste classification(s).
- E. Water Testing: The Environmental Consultant will conduct any necessary water testing required to make disposal determinations. Any discharge to the Sanitary Sewer system must be reviewed and approved by the UW Environmental Programs Office.

END OF SECTION