

Summary: New TG13289 created for Lead Testing and Monitoring since TG13288 only covered asbestos testing and monitoring

1. COORDINATION ISSUES:

1.1 ~~Consultants shall~~ be aware of the DAGS PWD Policies and Procedures for Handling Hazardous Materials during Renovation Projects and comply with the applicable parts. ~~Because of the serious health threat that exposure to asbestos fibers pose, the Federal government as well as the State government have enacted laws controlling the removal of ACM. Federal and State agencies administering these laws, in turn have promulgated numerous regulations. Since asbestos is has so much risk of potential public harm, it is imperative that asbestos containing materials (ACM), when removed from State buildings, are removed safely in accordance not with only the project plans and specifications, but also in strict compliance with all applicable State and Federal laws and regulations. Asbestos abatement projects can deteriorate rather rapidly with regard to the quality of work performed by the Contractor if the Contractor is left unsupervised. It is therefore essential that a team of competent personnel provide constant inspection at every aspect of the abatement project. This is the objective of the consultant's construction management team.~~

1.2 Projects shall comply at the minimum with the following regulations:

A. Title 29, Code of Federal Regulations, Section 1926.62, entitled "Lead Exposure in Construction; Interim Final Rule.

B. Department of Labor and Industrial Relations: State of Hawaii, Occupational Safety and Health Standards, Title 12, Subtitle 8, Part 2, Chapter 60. (also known as Chapter 12-60, Hawaii Administrative Rules, entitled "General Industry Standards", "General Safety and Health Requirements";).

C. Title 29 Code of Federal Regulations Part 1910.134, Respiratory Protection.

D. Federal Register: Vol. 54, No. 131; Tuesday, July 11, 1989. Department of Labor, Occupational Safety and Health Administration; 29 CFR Parts 1910, 1915, 1917, and 1918; Occupational Exposure to Lead; Statement of Reasons; Final Rule.

E. Title 40 Code of Federal Regulations Part 61, National Emissions Standards for Hazardous Air Pollutants.

F. Title 40 Code of Federal Regulations Part 261 to 265, 268.

~~Title 40 Code of Federal Regulations Part 745, Lead; Requirements for Lead-Based Paint Activities.~~

G. Title 49 Code of Federal Regulations Part 172, Hazardous Materials, Tables, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements.

H. Title 49 Code of Federal Regulations Part 178, Specifications for Packaging.

1.2.1

~~U.S. Department of Housing and Urban Development, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing", 2012.~~

U.S. Department of Labor, Occupational Safety and Health Administration, Construction Standard 29 CFR 1926, Subpart M, Fall Protection.

Title 11, Hawaii Administrative Rules, Department of Health, Chapter 41, Lead-Based Paint Activities.

Comply with the above requirements and any applicable federal, state, and local regulations, laws, and ordinances that pertain to this projectcontract. Where conflict or any inconsistency among requirements or with this specification exists, the more stringent requirements shall apply. Any question regarding conflict or inconsistency between specification and/or regulations should be directed to the Contracting Officer.

~~The construction management team shall provide inspection to include on-site examination of the abatement work to ensure that the work is being performed in accordance with the plans and specs, federal and state regulations. Daily communication with the building users is mandatory as is periodic clarification and instructions from the project designer.~~

~~1.3 Personal aAir monitoring during the removal, encapsulation, enclosure and clean-up operations of an asbestos abatement project is required by OSHA regulation 29 CFR 1926.58 1101 and HAR 12-145.1. A visual inspection and clearance air monitoring conducted after abatement work is completed is required by EPA 40 CFR Part 763, Subpart G, Worker Protection and HAR 110502. It is vital to protect the health, safety and interests of the State, the building occupants, and the contractor's abatement workers as well as the consultant's employees at the project site.~~

~~1.4 Minimum qualifications of the Consultant pertinent for the project scope are as follows:~~

~~1.4.1 Current certification through the Hawaii Department of Health as an Asbestos Project Designer;~~

~~1.4.2 Current certification through the Hawaii Department of Health as an Asbestos Project Monitor;~~

~~1.4.3 Current certification through the Hawaii Department of Health as an Asbestos Inspector;~~

1.3 Minimum qualifications for the Consultant pertinent for the project scope are as follows:

1.3.1 Current certification through the Hawaii Department of Health as a Lead Project Designer.

1.3.2 Current OSHA lead certification for Project Monitor.

2. DESIGN ISSUES: (Not Used)

3. DRAWING NOTES: (Not Used)

4. STANDARD DRAWINGS: (Not Used)

5. SPECIFICATION NOTES: (Not Used)

6. GUIDE SPECIFICATION:

6.1 Section 132898 - ~~Asbestos-LEAD~~ TESTING AND ~~Abatement~~ MONITORINGonitoring

SPECIFIER'S NOTE All references in this Section pertain only to the minimum requirements specified in OSHA 29 CFR 1926.62, 29 CFR 1910.1025 and HIOSH 12-60. Where a residence, building, or portion of a building contains lead-based paint and meets the definitions of "Target Housing" and/or "Child-occupied Facility", the more stringent requirements apply as stated in 40 CFR Part 745, HUD "Guidelines for the Evaluation and

Control of Lead-Based Paint Hazards in Housing”, HDOH 11-41, and all other applicable Federal, State, and local regulations (See Section 2.2 OF TG 13282 – LEAD PAINT CONTROL MEASURES for definitions of “Target Housing” and “Child-occupied Facility”). DAGS requires stringent requirements for Public Libraries as they are used for children to stay after school until parents pick them up after work.

Blue colored italicized text is used for notes to the specifier and should be completely deleted from the final text. Where [Red colored text in brackets] is shown in this specification section, insert wording, numbers, etc. as appropriate and delete brackets. Where <Red colored text in brackets> is shown, a choice is indicated. Make the appropriate choice and delete the brackets. ~~Blue colored italicized text is used for notes to the specifier and should be completely deleted from the final text. Where [Red colored italicized text in parentheses] is shown in this specification section, insert wording, numbers, etc. as appropriate and delete parentheses. Where <Red colored text in brackets> is shown, a choice is indicated. Make the appropriate choice and delete the brackets. Maintain footer notation with the initial current date of this new TG version used (e.g. T (TG13289009900 v1802.08). Verify that section titles cross referenced in this Section correspond to this Project's specifications; Section titles may have changed.~~

SECTION 132898 - ~~ASBESTOS LEAD TESTING AND ABATEMENT~~ MONITORING

SPECIFIER'S NOTE: *This guide specification covers the requirements to be followed by the Contractor for testing and air monitoring on the asbestos-lead abatement disturbance portion of a project.*

PART 1 - GENERAL

1.01 SECTION INCLUDES

SPECIFIER'S NOTE: *Project testing and air monitoring are basically inspection processes that are normally delegated to a consultant hired by the State and specified under a standard scope of work. Under certain conditions and for certain projects this work may be performed by a consultant to the Contractor and be made a part of the construction contract. This section lists two scopes of work:*

1. Contractor's requirements for lead disturbance~~abatement~~ work, and,
2. Scope and requirements for Lead Inspection and Testing

Delete item B ~~below~~^{above} if testing and monitoring services are not required by the State Project Coordinator

- A. Abatement Contractor's Responsibilities for personnel monitoring and record keeping.
- B. Project air monitoring and inspectional services for the purposes of:
 1. Verifying compliance with the specifications listed in Section 13282 – LEAD-PAINT CONTROL MEASURES (or equivalent section title)4.
 2. Ensuring that the State's legally required documentation is collected.;
 3. Providing engineering controls during the project.—

1.02 DEFINITIONS: Unless otherwise clear from the context, as used in this contract:

- A. "Action Level (AL)": Employee exposure, without regard to the use of respirators, to an airborne concentration of lead of thirty micrograms per cubic meter of air (30 $\mu\text{g}/\text{m}^3$) calculated as an 8-hour time-weighted average (TWA). ~~ACM": asbestos-containing materials.~~

~~B. "Air monitoring specialist": A member of the construction management team who enters the work area to set up the air monitoring device and then collects the various air samples to be sent to the laboratory for analysis.~~

~~B.G.~~ "Building Representative(s)": The person or persons designated by the users of the building to act on their behalf.

~~C.D.~~ "Contractor": The construction firm engaged to remove and, ~~encapsulate and/or~~ dispose of the lead-containing materials~~ACM~~.

~~D.E.~~ "Construction Manager": ~~The consultant's employee or his consulting subcontractor responsible for ensuring that the work of the contractor is conducted according to the contract documents and in compliance with applicable laws, regulations, ordinances, etc.~~

~~E.F.~~ "Construction management team": ~~The consultant's personnel or his consulting subcontractor who are involved in inspecting the work of the contractor and in personal air monitoring, sampling, testing before, during and after the asbestos-lead abatement project.~~

~~D.F.G.~~ "Consultant": The firm contracted by the f-1 State to inspect the work of the Ccontractor during the removal, ~~encapsulation~~ and disposal of the ACM-lead-containing materials and is capable or has a subcontractor to perform personal air monitoring,

sampling and testing before, during and after the ~~asbestos-lead removal and/or encapsulation~~. The consultant may be the construction manager or said construction manager may be a subcontractor to the consultant.

~~E. "Engineering Controls": Measures other than respiratory and other personal protection or administrative controls that are implemented at the worksite to contain, control, and/or otherwise reduce exposure to lead-contaminated dust and debris usually in the occupational health setting. The measures include process and product substitution, isolation, and ventilation. The term may be used in the occupational health setting in order regard to preventing workers' exposures to lead; it can also be used in other lead hazard control settings, such as in regard to preventing residents' exposure.~~

~~FEG. "Consulting subcontractor": A firm acting in cooperation with the "consultant" to perform personal air monitoring and testing work during and after the removal work; or construction manager for the consultant.~~

~~HH. "Industrial hygienist": A Certified Industrial Hygienist (CIH) certified by the American Board of Industrial Hygiene who shall direct all air monitoring and project supervision.~~

~~I. "Project Designer": The person or firm, certified by the DOH, State of Hawaii, who prepared the plans and specifications to remove, encapsulate and dispose of the lead-containing materials ACM.~~

~~GJJ. "Project manager": The State employee responsible for administering the construction contract and ensuring that the work of the contractor is conducted according to the contract documents and in compliance with applicable laws, regulations, ordinance, etc.~~

~~FJK. "Project Monitor": A person hired by the State [] State or the Consultant City who shall certify and document removal and clean-up of all lead-containing material and associated waste from the project site and perform visual clearances and testing. "Consulting subcontractor": A firm acting in cooperation with the "consultant" to perform air monitoring and testing work during and after the asbestos removal and/or encapsulation work; or construction manager for the consultant.~~

~~K. "Project Monitor": A person that is certified by the State of Hawaii Department of Health as an Asbestos Project Monitor. The Project Monitor may be the Consulting subcontractor or Construction Manager and be part of the Construction Management Team.~~

~~S~~

~~1.03 COORDINATION~~

~~**SPECIFIER'S NOTE:** Since the Contractor must coordinate his efforts with the Consultant/Project Monitor/Inspector, the requirements of Section 132824 should provide work specifications that will assure performance within the limitations to be verified by the Consultant/Project Monitor/Inspector.~~

~~A. Coordinate with the State's Consultant/Project Monitor/Inspector for the testing and air monitoring requirements included in Section 132824 – LEAD-PAINT CONTROL MEASURES for testing/ air monitoring consultants or Project Monitor/inspectors, and all applicable Federal, State and local regulations.~~

~~1.04 PRE-CONSTRUCTION CONFERENCE~~

- A. Hold conference prior to construction and shall be conducted by the Contracting Officer State Project Manager assisted by the ~~consultant's construction manager~~ Project Designer.
1. Attendance: Present also shall be the Contractor, Project Designer and/or the Project Monitor and, user agency and/or Building Representative(s), ~~and industrial hygienist, and air monitoring personnel~~ project monitor. When the abatement Contractor is a sub-contractor to a General Contractor, a representative of the General Contractor shall also attend.
 2. Agenda:
 - a. Review final schedule for project.
 - b. Verify legal requirements and special conditions.
 - c. Verify compliance with pre-construction requirement.
 - d. Obtain copies of all mandatory notifications.
 - e. Inspect sample respiratory equipment and other abatement equipment.
 - f. Review procedures and responsibilities.
 - g. Clarify the scope of work and its best impact on the users of the building.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

SPECIFIER'S NOTE: There have been instances where the Contractor is responsible for hiring personnel for testing and monitoring depending on the type of facility. Project Designer must coordinate with the State Project Coordinator.

3.01 STATE'S RESPONSIBILITIES

- A. Testing and ~~personal air~~ monitoring will be supplied by the Contracting Officer ~~or the Contractor~~.

3.02 CONTRACTOR'S RESPONSIBILITIES

SPECIFIER'S NOTE: There have been instances (which we want to avoid) where the Contractor has mistakenly assumed that the Contracting Officer would supply the Contractor's his legally required records long after the project was completed.

- A. The Contractor shall be responsible for providing the daily personal air monitoring and necessary records for all of the Contractor's employees for the duration of the project as required by OSHA (29 CFR 1926.58440462), Hawaii State Law (12-145) and all other applicable laws.
- B. The Contractor shall obtain the OSHAlegally required reports for personnel air monitoring as part of the contract.
- C. The Contractor shall be responsible for daily personal air samples that shall be collected on at least 25% of the Contractor's personnel performing removal work on similar tasks and for the duration of the project. Submit within 5 working days to the Contracting Officer.

- D. The Contractor is solely responsible for protecting his workers, ~~otherCity~~ personnel, and the ~~general~~ public from any of his work activities at the work site and on ~~StateCity~~ property regardless of the testing and monitoring conducted by the ~~StateCity~~.

SPECIFIER'S NOTE: Instances have occurred where Contractors have been offered monitoring information, declined it, and then requested it later, when it was no longer available.

- ~~E~~E. Monitoring information developed by the State's ~~Project Monitor~~Inspector's ~~Consultant's~~ activities shall be for the use of the Contracting Officer. The information will be available and offered to the Contractor when developed, but not thereafter, and shall not waive the Contractor's obligations stated elsewhere in this section.

SPECIFIER'S NOTE: Testing and monitoring are expensive. When it is involved with rechecking defective work the cost burden should be borne by the Contractor.

- ~~D~~F. Air monitoring and testing which becomes necessary ~~in order~~to follow up on ~~the~~ work by the Contractor which is rejected as not conforming to the requirements will be supplied by the Contracting Officer. However, the full cost of such additional monitoring and testing shall be borne by the Contractor, and shall be deducted from the final contract payment.

SPECIFIER'S NOTE: The ~~Contractor~~inspector will always normally do personal monitoring as part of his overall scope of work, ~~but it should be the responsibility of the Contractor to obtain and retain the Contractor's information. The inspector will normally do personal monitoring as part of his overall scope of work, but it should be the responsibility of the Contractor to obtain and retain the Contractor's information.~~

- ~~E~~G. Personal air monitoring that ~~becomes~~is part of the ~~Consultant~~Inspector's scope of work shall be accommodated by the Contractor.

SPECIFIER'S NOTE: For waste disposal, instances have occurred where the Contractors have incorrectly tested wastewater and solid wastes.

- H. Prior to disposal of lead contaminated wastewater, one wastewater (as applicable) sample shall be collected by the Contractor, to determine whether it can be disposed of as non-hazardous waste or with an EPA approved hazardous waste disposal facility as hazardous waste. Contractor shall obtain and submit to the ~~Contracting Officer~~City and County of Honolulu, a permit to conduct such disposal into the ~~City and County of Honolulu's~~sanitary sewer system prior to disposal. Disposal of all wastewater suspected of being contaminated with lead in the storm drain system is prohibited. Wastewater, no matter what its lead content, shall not be dumped on the ground. Contractor is ultimately responsible for and shall include in his bid the cost to properly dispose of all waste, hazardous or non-hazardous. Submit a copy of the permit to the Contracting Officer.

- I. Perform the 8 Resource Conservation and Recovery Act (RCRA) Toxic Characteristic Leaching Procedure (TCLP) metals testing on all solid waste debris contaminated with lead (~~except for~~with the exception of painted scrap metal), in accordance with 40 CFR Part 261 "Identification and Listing of Hazardous Waste". Painted metal debris shall be separated from the rest of the lead- contaminated waste and disposed of as scrap metal at a metal recycler (when disposed of as scrap metal, TCLP testing is not required). The 8 RCRA metals TCLP testing shall be used to determine whether waste is hazardous or non-hazardous prior to disposal. Dispose of lead-contaminated debris as hazardous waste if the waste is determined to be hazardous by the 8 RCRA metals TCLP testing. If the 8 RCRA metals TCLP testing indicates that the waste is non- hazardous, the Contractor shall dispose of the waste as non-hazardous, construction waste.

3.03 AIR MONITORING AND INSPECTIONAL SERVICES

SPECIFIER'S NOTE: For buildings, or portions of -buildings containing lead-based paint and

meeting the definitions of "Target Housing" and/or "Child-occupied Facilities", other testing (dust wipes, soil) may be required.

A. Duties of the ~~ee~~ Construction Manager/Consultant:

1. Photographic Record of Project: Record the ~~asbestos-lead~~ abatement project with representative photos to the Contracting Officer. All photos shall become the property of the State and are to be accompanied by a detailed log.
2. Project Log: Maintain daily field reports detailing all key activities during abatement and make a submittal of summary ~~of~~ project activities to the project designer and the Contracting Officer/State project coordinator. Incorporate the contents of the daily field reports with other project data into a final project report. ~~(See Section 4.4).~~
3. Visual Inspection of all Containment Areas: Perform regular inspection of all containment areas. Conduct inspections during the actual work performance of the Contractor to document the work practices employed by the Contractor and ~~prior to air clearances testing in each area to~~ conduct visual clearances to verify that all materials scheduled for abatement were removed and the area was properly cleaned. Submit clearances to the Contracting Officer.

~~4. Issuance of Change Order: If changes are necessary once construction begins, review request for change and make a recommendation for approval. Issue any appropriate change order subject to and after approval by the State.~~

B. Air Monitoring: The ~~State consultant's~~ on-site ~~air monitoring specialists and industrial hygienists~~ Project Monitor shall perform the following activities associated with this portion of the project:

1. On-site ~~environmental and~~ personnel air monitoring (if not provided by the Contractor) as required by ~~EPA, HDOH, OSHA and~~ HIOSH, and the project specifications (See methodology below).
2. Laboratory analysis ~~for lead-in-air and dust wipe by PCM analysis~~ using NIOSH 7082 or OSHA 105400 method. ~~and soil analysis using EPA 7000B method.~~

~~NOTE: For AHERA projects, TEM analysis will be required for final clearance. It is highly recommended that TEM analysis is used for clearing non AHERA projects.~~

3. Monitoring of decontamination procedures at site entry/exit.
4. Monitoring of containment maintenance by visual and instrumental inspection.
5. Interface with project inspectors, building representatives, representatives of regulatory agencies, and project designers during site visits.
6. Ensure that proper respiratory protection is utilized by all persons at the project site.
7. Relay to the Contracting Officer/State project coordinator any discrepancies in Contractor's action with provisions of project specifications.
8. Act quickly in case of emergencies with appropriate response.

~~3.04 SAMPLING DESIGN~~

~~A. The following is a typical sampling design per containment area during the actual construction. The number of samples and volume quantities may vary, depending on each project's specifications.~~

1. ~~Background Samples: Background baseline <air and soil> samples shall be taken prior to abatement to establish pre-abatement airborne fiber lead concentration levels. Three high volume continuous flow samples shall be taken per estimated containment area. All work area air samples shall be analyzed by the NIOSH 7082400 method. All personal air samples shall be analyzed in accordance with OSHA 29 CFR 1926.62581101. The reference TWA (time weighted average) shall be established one day prior to the masking and sealing operations. <Background baseline soil samples shall be analyzed by the EPA 7000B method only if soil clearance samples do not pass.>~~
2. ~~Work Area Samples: Low volume samples of 480 liters each shall be taken in the work area. Ambient air samples shall be taken in the work area for comparison to barrier samples in an effort to ensure that containment systems are secure and that the persons entering the work area are wearing proper respiratory protection. If monitoring inside and outside the asbestos lead abatement work area shows airborne concentrations have reached the predetermined specified TWA, the consultant shall stop all work, notify the State immediately, have the contractor correct the condition(s) causing the increase and ensure that the contractor obtains the State's approval prior to restarting the removal work.~~
3. ~~Barrier Samples: Monitoring outside the temporary barriers determines if leakage is occurring outside the work area due to loss of negative pressure or faulty seals. Two high low volume samples shall be taken per eight hour day per barrier.~~
4. ~~Outside Environmental Samples: Each removal area shall be sealed so that airborne fibers dust cannot escape into occupied areas. Air is forcibly drawn from the removal area by a negative air machine, filtered and exhausted to the outside environment. SHigh volume samples shall be taken at the negative air unit exhaust to ensure compliance with the levels required by the project specifications and/or any applicable regulations. One sample per eight hour day per containment area shall be taken.~~

SPECIFIER'S NOTE: Dust wipe clearances are required only in residential dwellings and child occupied facilities. Industry practice however is to conduct wipe clearances in other facilities especially when a school is involved.

5. ~~Final Dust Wipe Clearance Samples: The Project Monitor will conduct a final visual clearance inspection after abatement activity is completed. Upon passing the final visual inspection, dust wipe samples shall be collected a minimum of one hour after the abatement process has been completed.~~
- ~~[The clearance criteria for all interior horizontal floor surfaces shall be 40 micrograms per square foot ($40 \mu\text{g}/\text{ft}^2$) for interior horizontal flat surfaces, 250 micrograms per square foot ($250 \mu\text{g}/\text{ft}^2$) for all interior window sills, and 400 micrograms per square foot ($400 \mu\text{g}/\text{ft}^2$) for exterior hard surfaces and window troughs. If the clearance criteria are exceeded, the Contractor shall re-clean the area at Contractor's expense until a visual and the pertinent sampling results indicate that the clearance criteria has been achieved.]~~

~~[Dust Wipe Clearance Criteria for the HUD Office of Lead Hazard Control and Healthy Homes (OLHCHH) Lead-Based Paint Hazard Control (LBPHC) and Lead Hazard Reduction Demonstration (LHRD) grantees may also be utilized – Effective April 1, 2017, all existing OLHCHH LBPHC and LHRD grantees will use the following lead-dust clearance levels (or lower levels if required by local, state, or tribunal authorities having jurisdiction): are as follows:~~

- ~~Interior floors: $<10 \mu\text{g}/\text{ft}^2$~~
- ~~Porch Floors: $<40 \mu\text{g}/\text{ft}^2$~~
- ~~Window sills: $<100 \mu\text{g}/\text{ft}^2$~~

~~Window Troughs: <100 µg/ft²~~

SPECIFIER'S NOTE: Soil clearances are required only in residential dwellings and child occupied facilities. Industry practice however is to conduct soil clearances in other facilities especially when a school is involved.

~~6. [Final Soil Clearance Samples: The Project Monitor will conduct a final visual clearance inspection after abatement activity is completed. Upon passing the final visual inspection, soil samples shall be collected and analyzed for total lead in soil. If the soil testing is found to exceed EPA's limit of 400 ppm for lead, the Contractor shall analyze the background soil samples. If the background pre-construction soil samples indicate that the level of lead in the soil did not exceed 400 ppm, the Contractor shall repeat the cleanup and testing process until the testing results are below their respective clearance level.]~~

SPECIFIER'S NOTE:

The Hawaii Department of Health (HDOH) Hazard Evaluation and Emergency Response (HEER) Office standards for lead in soil for residential properties and commercial and industrial properties may also be specified when appropriate utilized:

~~[Residential properties: <200 mg/kg or ppm;~~

~~Commercial and industrial properties: <800 mg/kg or ppm.]~~

~~After air in containment has been exchanged by High Efficiency Particulate Absolute (HEPA) filtration at least 72 times, (air clearance) samples shall be taken to determine if air is cleaned below the specified rate. If not, the area must be cleaned again and a second set of clearance samples run. When the fiber count is below the specified level, a final set of samples shall be collected for analysis by transmission electron microscopy or phase contrast microscopy depending on the size of the abatement area. If these tests reveal that the air has been cleaned to the acceptable standards, the area may be opened for re-occupancy.~~

3.045 LABORATORY ANALYSIS:

A. ~~The consultant's industrial hygienist shall maintain a testing facilities in the vicinity of the project site. An industrial hygiene monitoring setup with high volume and low volume pumps, calibrators and all filtering needs, in addition to a fully equipped laboratory for rapid sample analyses to the field, shall be included in this facility. This is vital because it increases the efficiency of the contractor and allows immediate readings of air samples, rather than mailing them to a laboratory, which sometimes delays the release of containment area. All personal air, dust, and soil samples collected by the State's Project Monitor and the Contractor shall be analyzed by an AIHA certified laboratory for the analysis being requested. All laboratories shall be registered with the Hawaii Department of Health.~~

3.06 TEM ANALYSIS:

A. ~~Samples requiring TEM analysis shall be sent to an approved and certified laboratory which shall be qualified to provide this type of analysis. A short turnaround time is required for receipt of the results. This will affect the project's cost because the shorter the turnaround time imposed on the laboratory, the greater the charge for the analysis. The consultant's TEM lab shall be fully equipped and qualified to complete TEM analysis 100 on all three levels of protocols and shall utilize the level directly related to the information sought;~~

SPECIFIER'S NOTE: Of the three levels, use Level II. It analyses the samples of specifications desired for regulatory action.

1. ~~Level I: The most rapid procedure for screening many samples. However, results should not be used in legal proceedings.~~

~~2. Level II: Elemental analysis for regulatory action in addition to all Level I specifications.~~

~~3. Level III: Confirmation analysis of controversial samples, required for most legal proceedings.~~

~~KYLE, CONFIRM IF REFERENCING THE "AHERA METHOD" IS GOOD ENOUGH AND IF IT IS, THEN CAN DELETE THE LEVELS STATED ABOVE.~~

3.057 DAILY TESTING RECORDS

- A. ~~At the conclusion of every day's testing t~~At the conclusion of each day's testing, ~~The State's consultant's industrial hygienist~~Project Monitor shall provide copies of all ~~personal air testing and~~ monitoring records to the ~~of each containment area to the <State, the contractor>~~, and the consultant's project manager ~~within 5 working dayss~~ of collection.

END OF SECTION ~~132898~~