GUIDANCE FOR LEAD-CONTAINING PAINT WORK TASKS

For any and all construction, renovation, and/or demolition work occurring at Emory University, it is the responsibility of The Environmental Health & Safety Office to ensure compliance with regulations of EPA and OSHA.

The EPA – TSCA (Environmental Protection Agency – Toxic Substance Control Act) defines lead based paint as paint with lead levels equal to or exceeding 1.0 milligrams per square centimeter (mg/cm²) or 0.5% by weight. Thus, a level of lead in paint above the detection limit (determined by the amount of the sample and the constraints of the laboratory), but below the amounts listed above, is considered to be lead-containing paint. These levels are considered by the industry as “state-of-the-art” and are strictly adhered to at Emory University.

The OSHA Lead in Construction standard (29 CFR 1926.62) was developed for protection of workers from all occupational exposures to lead in all construction work in which lead, in any amount, is present.

Construction work is defined as work for construction, alteration and/or repair, including painting and decorating. It includes but is not limited to the following:

- Demolition or salvage of structures where lead or materials containing lead are present;
- Removal or encapsulation of materials containing lead;
- New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- Installation of products containing lead;
- Lead contamination/emergency cleanup;
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, and;
- Maintenance operations associated with the construction activities described above.

The employer must provide their employees with the following types of personal protective measures, unless a negative exposure assessment has been completed (an explanation of “negative exposure assessment” follows):

- Appropriate respiratory protection;
- Appropriate personal protective clothing and equipment;
- Change areas;
- Hand washing facilities;
- Biological monitoring to consist of blood sampling and analysis for lead and zinc protoporphyrin levels, and;
- Training, including communication of hazard(s), respirator usage, and safety.

An employer that performs an exposure assessment must show documentation that the employer has “collected samples representative of a full shift including at least one sample for each job classification in each work area either for each shift or for the shift with the highest exposure level.” In addition, full shift personal samples must be representative of the monitored employee’s regular, daily exposure to lead. [If an employer does not have documentation of a negative exposure assessment (>30μg/m$^3$ over an 8-hour period), all personal protective equipment described above must be issued to the employees.]

Where lead containing coatings or paint is present: Until the employer performs the employee negative exposure assessment as described above, and documents that the employee performing any of the listed tasks$^1$ is not exposed above the PEL, the employer shall treat the employee as if they are being exposed above the PEL, and shall provide appropriate personal protective measures described above.

$^1$ Manual demolition of structures (drywall)
- Manual scraping
- Manual sanding
- Heat gun applications
- Power tool cleaning with dust collections systems
- Spray painting with lead paint

**TCLP Analysis and Segregation of Waste**

Once the abatement scope is decided, Emory representative(s) will be responsible for collecting a sample of lead coated components (lead based and/or lead containing) representative of the abatement debris for Toxicity Characteristic Leachate Procedure (TCLP) analysis. According to the Environmental Protection Agency under the Resource Conservation and Recovery Act, the leachable (soluble) level of lead by TCLP analysis must be less than 5.0 milligrams/liter (mg/L) before disposal. If the leachable level is higher than that, it is hazardous waste and must disposed of as hazardous waste. Emory University will assume the responsibility of disposal of materials deemed hazardous. If the leachable level is lower than 5.0 mg/L, it shall be the Contractor’s responsibility to dispose of debris in approved Type II C/D lined landfills. Waste manifest shall be forwarded to Emory once final deposition has been made.

If the paint is stripped, TCLP analysis and a pH scan will be necessary to determine the toxicity of the stripper. When the paint is stripped from the components, all of the above disposal requirements apply.

Emory University utilizes segregation for waste minimization purposes to lower disposal costs and analytically provide an accurate picture of the waste stream from an abatement project. The segregation of waste under a typical circumstance will be defined by Emory, and be made a part of the disposal section of the project specifications.

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An example of segregation of waste:
Some wood window frames contains lead paint and the TCLP is 6 mg/L. It is the only component in the abatement scope that has a TCLP result above 5 mg/L. The windows frames would be disposed in one waste stream, and nothing else enters that waste. Everything else would be disposed of together.

Another example of segregation of waste:
Separate the poly from a lead removal project from the actual component removal, stripping material, or poly drops used for easier cleanup. The only requirement is that the poly is thoroughly cleaned prior to disposal.

Costs associated with the contractor’s non-compliance with the above segregation directive will be born/passed on to the contractor.

Disposal in Approved Landfills

All disposal of non-hazardous building materials must be completed in Type II C/D lined landfills. A list of Georgia Environmental Protection Division, Land Protection Branch approved landfills is attached.

Emory University provides this document as guidance only. It is accurate as of the day of writing listed below and is subject to change without notice to contractors. Changes would be due to a modification in guidance documents and/or other institutions or organizations, changes in governmental regulations (Federal or state).

If there are any questions concerning this guidance document, contact The Environmental Health & Safety Office at 404-727-5684 or 404-727-5649.