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When should involvement of the Environmental Consultant begin?

- The Design Professional should retain the Environmental Consultant when the design scope of work is being developed, typically by 30%. Have the Environmental Consultant complete the environmental survey immediately following the completion of the 30% design review, so the environmental consultant will be supplied with the most up to date scope of work for the project, prior to performing the survey. The survey shall address all suspect materials in the rooms/areas impacted. Submit the completed environmental survey for review by DASNY Code Compliance, prior to the 60% design submission.
- Recommend use of DASNY Term Consultants as they are already familiar with DASNY procedures but spread the design work out over all of our term consultants, so one firm doesn't get overwhelmed with work and the quality of the product suffers.

When is an environmental survey and assessment required?

- Whenever the project impacts an existing building/structure. The Building/Structure term also includes man-made structures used for conveyance of utilities, vehicular traffic, or pedestrians such as bridges, tunnels, manholes, subsurface conduits, sidewalks, etc.).


In other words, an environmental "survey and assessment" is required for virtually ALL projects.

What environmental hazards require a **survey and assessment**?


- It depends on the scope of work (see DASNY guidance - [Hazardous Materials Encountered during Construction/Demolition](#) - This document covers survey and sampling requirements for Asbestos, PCB caulk, Universal & Hazardous Wastes, Lead, and assessment of Mold & Petroleum Contamination):

Asbestos Survey

- Required whenever the project impacts an existing building or structure.
- If a previous survey is to be utilized as a starting point, an additional inspection will be required to ensure that all impacted materials associated with the project have been surveyed. An updated survey (that attaches the complete previous survey report(s) including analytical reports with associated chain of custody documentation) must be developed.
- Asbestos bulk sample analyses, including Vermiculite, cellulose in ceiling tiles, non-friable organically bound (NOB) requirements, and the other specific recent NYSDOH ELAP guidance information should be discussed.
- Thermal system insulation (TSI) and surfacing materials shall be analyzed in accordance with AHERA protocols. Miscellaneous materials shall be sampled in a manner sufficient to determine if they are ACM. A minimum of two (2) samples of each miscellaneous material shall be collected and analyzed to determine the materials as non-ACM. If NOB PLM sample analyses are inconclusive/none detected, **ALL** samples of **EACH** homogeneous material must be analyzed and determined none detected or $\leq 1\%$ (trace) asbestos by NOB TEM analyses to identify them as Non-ACM.
- Surfacing materials containing vermiculite must be analyzed by New York State Department of Health (NYS DOH) Environmental Laboratory Approval Program (ELAP) Method 198.8 to be determined non-ACM. If surfacing materials with vermiculite are not analyzed by 198.8, they must be assumed as ACM and indicated as such in the survey report. The AHERA 3-5-7 rule for minimum number of samples to be collected and analyzed still applies.

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- Potential suspect materials that are concealed behind walls, ceilings, spandrel beams, exterior walls, foundations, etc. must be assumed asbestos containing until access is obtained and confirmatory bulk samples are collected and analyzed. Discuss project impact of consultant assuming suspect materials are positive without sample analyses confirmation. This approach may add an undue cost burden to the project, due to non-ACMs being handled and abated as ACMs. Sample analyses are preferred and result in a definitive asbestos content for the suspect materials. Suspect electrical wire insulation or other electrical devices with suspect material shall be sampled after being de-energized. Environmental consultant shall coordinate all necessary power shutdown(s) with owner's representative.
- All inaccessible rooms or areas (i.e. within wall chases, within energized/operational systems, beyond reach of inspection personnel, etc.) within the project scope shall be identified in the survey report along with a reason why they were inaccessible at the time of the inspection (i.e. prohibited by owner, safety considerations, room/area occupancy, etc.). All building materials, surfaces, equipment, etc. within these inaccessible locations shall be identified within the report as Presumed/Assumed Asbestos Containing Materials.
- Collection of bulk samples: layered analysis for sheetrock/tape/joint compound, roofing, plaster. Wall vs. ceiling materials (separate homogeneous materials). Bulk samples collected shall include each sample location information/description such that the location can be located by anyone having the chain of custody documentation. Sample location drawings shall not replace or take the place of sample location descriptions on chain of custody documentation.
- Additional samples may be necessary at 60% or 100% design due to changes in the project scope of work as design progresses. Additional samples may also be necessary if scope is added or accessibility conditions change during the design phase, bid phase or construction.
- The survey report shall contain a summary of the project areas including but not limited to: construction date of the structure/addition; number of floors; approximate square footage; general floor, wall and ceiling construction summary; and occupancy as well as intended use status.
- The survey report shall summarize all identified ACM, including those determined by laboratory analyses as well as assumed/presumed ACM, along with the respective friability, condition, and quantity of each ACM and assumed/presumed ACM homogeneous material in the affected area(s).
- The survey report shall also identify trace asbestos materials (\leq 1% asbestos) along with the applicable OSHA handling restrictions and summarize within the executive summary of the report. Quantities of all trace materials shall be included in the environmental report.
- All non-suspect materials observed in the project areas shall be identified in the survey report.
- Survey report shall contain the complete analytical laboratory report, signed by the analyst and the reviewer, along with the associated, fully completed chain of custody documentation, and the laboratory and inspector certifications valid at the time of analysis and sample collection, respectively. Hand-written analysis results will not be accepted.
- The environmental consultant must receive a complete copy of the 100% design documents including all addenda and update the environmental survey report (and abatement design documents, if necessary), before the project will be signed off by AAE.

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Polychlorinated Biphenyls (PCBs)

- The survey shall address all caulk/sealant and glazing materials both on the exterior and interior of the buildings/structures. The investigation and findings shall be summarized in the survey report, even if none are identified. Refer to the DASNY PCB Caulk Sampling and Analysis Guidance for additional information.

Universal/Hazardous Wastes

- Universal/Hazardous Waste: Whenever such materials are scheduled to be removed/replaced. Universal wastes consist of mercury containing equipment (MCE), lamps, pesticides, used oil, batteries, etc. Fluorescent light ballasts not labeled as PCB-free must be identified as hazardous waste. The investigation and findings shall be summarized in the survey report, even if none are identified or impacted by the scope of work.

Potential Contaminated Soil

- Discuss continuous soil screening with a direct read instrument, as well as odor and visual observations and soil sampling procedures whenever the project impacts historical fill materials, known soil contamination, or is associated with a UST/AST project. Also when footings, slab on grades, grade beams, piles, or other excavation is required.

Refrigerants


- Refrigerants: Whenever HVAC units or systems holding such materials are scheduled for replacement or removal.

Mold

- Project impacted spaces shall be assessed for mold at same time of other necessary assessments (e.g. asbestos, PCB caulk, etc.) by a NYS DOL licensed mold assessor. A visual assessment along with moisture content determination is typically sufficient, unless client requests laboratory analyses. The investigation and findings shall be summarized in the survey report, even if no mold is identified.

Lead

- Required whenever the project impacts an existing building or structure.
- Project impacted spaces shall be assessed for lead at same time of other necessary assessments (e.g. asbestos, PCB caulk, etc.) by an US EPA certified lead inspector or risk assessor (risk assessor includes inspector prerequisites).
- Any renovation or demolition activity for an existing building or structure shall have a survey performed to identify lead in paints/coatings in the project areas. Include a section in the hazardous materials report to address lead in paint/coating survey of areas/surfaces impacted by the project. The lead section in the report shall contain a general discussion of the buildings/structures and areas impacted by the project, including approximate construction dates, general floor (i.e. wood, concrete, ceramic, resilient flooring or mix as appropriate), wall and ceiling finishes. Include statement indicating a suspended ceiling tile system if present and a description of exterior painted/coated components. Since the construction activities often change during the design progression, all painted/coated surfaces in the room/area shall be addressed. Such surfaces include but are not limited to: floors, walls, ceilings, doors, radiators, windows, and structural steel. Descriptions of each surface shall identify:
 - Component (i.e. floor, wall, ceiling, door)
 - Substrate (i.e. brick, concrete, drywall, metal, plaster, wood)
 - Condition of the paint/coating (i.e. intact/good, delaminating, etc. and extent of damage)
 - Quantity of LCP including LBP impacted by the scope of work.

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- Location of surfaces (i.e. interior, exterior, in wall, in chase, etc.)
- Paint chip samples collected shall be transmitted to the laboratory under proper chain of custody procedures. Such chain of custody documentation shall include the paint color, component, substrate, and sample location. The chain of custody shall be signed and dated by the sampler.
- Testing of paint chip samples shall be performed by a NYS DOH ELAP certified and US EPA National Lead Laboratory Accredited laboratory.
- If XRF testing is method utilized, identify name of device and manufacturer in report as well as precautions taken to avoid inadvertent exposure of building occupants in rooms adjoining XRF testing areas (i.e. floor vacated, survey performed after hours, etc.). Provide summary of testing in report as well as documentation of XRF measurements in appendix including the pre- and post-calibration measurements in accordance with the Performance Characteristic Sheets (PCS) for the device. Include valid US EPA lead certification documentation for the inspector and company in the appendix, as well as documentation of inspector training specific to the XRF device utilized.
- Obtain a lead inspection to meet HUD Standards, if required (i.e. child-occupied facility).

When should design documents be developed?

- The initial design review submission should at least be at 60% after the environmental study review, comments and responses have been completed. The 60% design submission should include all draft DEP documents, site specific variance petitions, specs, drawings, etc., as required. Also, include all supplemental or revised survey and assessment reports if not already submitted for review. All comments must be addressed in the 100% review submission so that the project can be signed-off.

Design

- During the survey, the consultant must be cognizant of design considerations and note any special job conditions and if any site conditions require NYS or NYC site specific asbestos variances (e.g. interior negative air ventilation system exhaust). Insist that the environmental consultants review (QC) their design documents before submitting for review to make sure the documents are complete and comprehensive, as the DASNY design reviewer shouldn't be performing this task for the consultant.
- Design drawings should include the following: details to define the scope of work, legends, abatement notes, locations and types of materials requiring abatement, etc.
- The most recent version of the DASNY standard specifications for asbestos, mold, lead, universal waste, hazardous waste, etc. must be utilized. These are located on the DASNY website at: <https://www.dasny.org/tools-forms/design-resources>. The consultant must only revise the scope of work and special job conditions sections and the specific appendix that provides the variances (if applicable).
- If lead abatement is required per HUD, or RRP regulations apply to child occupied facility, use the most recent version of the [DASNY Standard Lead Abatement Specification](#) available on the DASNY website under Tools & Forms / Design Resources / DASNY's Standard Specifications. If lead based coating impact as per OSHA regulations, include pertinent notes on drawings and use most recent version of the [DASNY Standard OSHA Lead Disturbance Specification](#) and [DASNY Standard Specification Identification and Disposal of Hazardous Waste](#) for handling, waste containerization, on-site storage, transport and disposal of all generated hazardous waste. Third party oversight and clearance requirements shall be determined on a case-by-case basis, as per the client's direction.
- Abatement designs must include all presumed and assumed suspect materials until access is obtained and confirmatory bulk samples are collected and analyzed.

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NYC abatement projects & DEP requirements

- For CUNY projects, discuss the DEP involvement/documentation and that the asbestos abatement design will follow NYS regulations. However, notifications / forms shall be submitted in accordance to and in adherence with NYC DEP requirements. Therefore, most CUNY projects must have an ACP5 or ACP7 form submitted to NYC DEP, as applicable. Please note that there are some CUNY projects that need to be designed as per Title 15 (rented), but most are designed and filed as NYS-ICR 56 projects for NYS owned buildings.
- For HHC, NYC Courts, other NYC owned buildings or voluntary program within NYC where DASNY doesn't hold the contracts, discuss the DEP involvement/documentation and that the asbestos abatement design will follow NYC regulations. As necessary, the Owner shall submit a letter authorizing DASNY Code Compliance to perform the on-line acknowledgments.
- Review DEP and ATRU asbestos review procedures. See DASNY Guidance – NYC DEP/ATRU Work Place Safety Plan and Asbestos Abatement Permit Submission Check Lists. Refer to [DASNY design resources webpage](#) for guidance
- For OMH, OPWDD, SUNY, OASAS (state operated), etc. projects where DASNY issues the construction permits, asbestos abatement design must follow NYS regulations.