NEW YORK STATE | DASNY	**Office of Construction** **Code Compliance Department**	**Design Kick-Off for Environmental Impacts** **Supplement to Design Kickoff Meeting Agenda** **12/24/2024**

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/sealants/glazing, 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 the current condition / disposition of 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 or other ELAP-approved methodology to be determined non-ACM. The AHERA 3-5-7 rule for minimum number of samples to be collected and analyzed still applies.

- 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 of suspect materials 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 (Note: vinyl is suspect) 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. Typical sample descriptions identify the floor / level, area/room and specific location within the area/room.
- 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 report shall identify / list the rooms / areas impacted.
- 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). Quantities of all ACM impacted by the project shall be included in the environmental report.
- 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.
- Survey report shall include an appendix to the report with photographs of the survey area/materials that were determined to be ACM. Each photograph shall have an ID# and a description of the view, an arrow pointing to the material described as well as if the material pictured is ACM or not.

- 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. The consultant shall reference the most recent submission reviewed (including the title and associated date (100% Bid Documents dated DD/MM/YYYY) in their environmental report. The report date, including day, month and year, shall be revised each time to avoid confusion with previous versions.
- All visual observations of non-suspect materials in the area(s) impacted by the project shall be listed within the report.

Polychlorinated Biphenyls (PCBs)

- The survey shall address all caulk/sealant and glazing materials both on the exterior and interior of the buildings/structures. As a reminder, **Interiors and exteriors** of duct work shall also be assessed and inspected for these suspect materials, when applicable. 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. Not required on building or structures constructed after 1980.

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, aerosol cans, etc. Fluorescent light ballasts not labeled as PCB-free must be assumed and identified as hazardous waste. Mercury-containing (Tartan) gym flooring systems would also be considered hazardous waste. The investigation and findings shall be summarized in the survey report, even if none are identified within the affected areas (i.e. labeled “Electronic Ballasts”) or impacted by the scope of work.
- Provide Universal/Hazardous Materials (i.e. PCB Light Ballasts, 4’ fluorescent bulbs) waste inventory generated by the project in the environmental survey report.

Potential Contaminated Soil

- Historically contaminated soils are common in well developed areas such as New York City properties and industrial areas. Provision for environmental evaluation of subsurface soils will be necessary in such areas to avoid project delays and expenses during construction.
- 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. Ideally, screening of soils (such as organic vapor detection devices) during the geotechnical investigations may provide a qualitative indication of potential subsurface impacts / contamination. Evidence of releases requires notification of regulatory agencies (i.e. NYS DEC).
- On-site reuse of fill materials as on-site backfill materials is allowed. Fill material used as backfill for the excavation from which the fill material was taken, or as fill in areas of similar physical characteristics on the project property is exempt from solid waste regulations including analyses. If fill material exhibits historical or visual evidence of contamination (including odors), and will be used in an area with public access, the relocated fill material must be covered with a minimum of 12 inches of certified clean soil or fill material that meets the criteria for general fill.

Refrigerants

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

Mold

- Project impacted spaces and general areas leading to the 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.

Guano Contamination

- Project impacted spaces and general areas leading to the impacted spaces shall be assessed for guano contamination at the same time of other necessary assessments (e.g. asbestos, PCB caulk, etc.). A visual assessment is typically sufficient, unless client requests laboratory analyses. The investigation and findings shall be summarized in the survey report.

Lead

- Required whenever the project impacts an existing building or structure with painted / coated substrates / elemental components.
- 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 pre-requisites).
- Any renovation or demolition activity for an existing building or structure shall have a survey performed to identify lead in paints/coatings/ elemental lead 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.
  - 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.
- The project title shall include "Asbestos Abatement" and/or "Hazardous Material Removals" dependent upon the project scope of work.
- Design drawings should include the following: details to define the scope of work, legends, north arrow, 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/DesignConstruction/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. 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 of suspect materials are collected and analyzed.
- Require segregation of regulated and hazardous waste streams during generation to minimize transportation and disposal of these waste streams.

- Hazardous Waste issues to address during design (as applicable):
  - Instead of disposal as hazardous waste, recycle metals and utilize c7 DEC notification form where possible.
    - Metal with Lead-based paint (e.g. lead-coated copper).
    - Lead bricks, lead flashing, shielding, etc. (e.g. lead sheets used in x-ray rooms).

  - Potential hazardous waste disposal option to be discussed with the client during design: If the project is at an OPWDD hostel or college / university residential / dormitory building and hazardous waste is limited to lead based paint from non-demolition/deconstruction activity, the owner may elect to have waste temporarily stored on-site, transported and disposed of as household waste, at a Municipal Solid Waste (MSW) permitted landfill, as per all pertinent NYS DEC requirements for Household Hazardous Waste (HHW) exemption. TCLP samples are not necessary for characterization of household hazardous waste. Note: The HHW exemption applies to renovation projects only; demolition projects require disposal in accordance with the 8 RCRA Metal TCLP analytical results. Any 8 RCRA Metal TCLP samples submitted for analysis shall be accompanied by proper chain of custody documentation including the composition of each sample submitted.

  - The designer shall include specific requirements for the contractor to provide their waste stream generation plan, including segregation, as required by the respective specifications. Based on the waste streams indicated, the consultant shall perform testing and analyses in accordance with existing waste sampling procedures (i.e. ASTM E1908, etc.).

- Designer shall include an allowance in the bid documents for hazardous waste, generated from LBP building components. The allowance should cover costs of on-site storage, transport and disposal, if waste stream samples indicate hazardous waste stream. Designer to calculate anticipated volume of potential hazardous waste to be generated and provide calculated volume quantity in bid documents.

- Excavated soils issues to be addressed during design:
  - NYS DEC Required Sampling of excavated soil generated in NYC and other potentially contaminated areas that are to be disposed off-site
    - The fill material originates from a location within NYC, unless the quantity of fill material does not exceed 10 cubic yards from one site and the 10 cubic yards or less of material does not contain historical evidence of impacts such as reported spill events, or visual or other indication (odors, etc.) of chemical or physical contamination;
    - The fill material originates from a location outside NYC and:
      - there is historical evidence of impacts such as reported spill events, or visual or other indication (odors, etc.) of chemical or physical contamination;
      - the fill material originates from a site with industrial land use; or
      - if, during excavation, visual indication of chemical or physical contamination is discovered.
  - NYC soils waste - NYSDEC tracking document - DEC Waste tracking document must accompany waste for all C&D debris & contaminated soils waste generated in the “New York City Metropolitan Area Waste Impact Zone” (All 5 Boroughs, LI, Westchester & Putnam counties).
    - Completed tracking document must be returned to generator within 2 weeks of disposal facility acceptance. Also, must be sent to DEC within 15 calendar days.

- The waste tracking document must be legible and the document certification must be signed and dated by an authorized representative of the generator. The waste tracking document certification shall state: I certify, under penalty of law, that the information provided in this waste tracking document has been prepared under my direction and supervision and further certify that the information contained herein is true and accurate. I am aware that any false statement on this form is punishable pursuant to section 210.45 of the Penal Law.

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 for projects requiring NYS DOB and / or FDNY permits. 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/leased), 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 NYCDEP and ATRU asbestos forms and filing procedures. The current procedures can be accessed on the NYCDEP Abatement Forms & Filing Instructions webpage. Refer to DASNY design resources webpage for additional guidance.
- For OMH, OPWDD, SUNY, OASAS (state operated), etc. projects where DASNY issues the construction permits, asbestos abatement design must follow NYS DOL regulations.