A·C·C ENVIRONMENTAL CONSULTANTS

Environmental Project Reference

(800) 525-8835

May 2012

Environmental Project Planning Considerations

1. Define project scope & forward scope and drawings, use Project checklists to review potential impact to Asbestos and Lead Materials. Contact ACC for assistance.
2. Review project impacts against known environmental conditions and determine if environmental information addresses all known site conditions, if not arrange for a survey. A review of site conditions related to project impacts to building materials should be preformed during this process.
   - **Asbestos** sampling should be conducted for all materials – fireproofing, ceilings, wall materials, flooring, roofing, exterior siding, mechanical systems, etc.
     - ***Any detectable concentration of asbestos triggers OSHA required procedures in California.***
     - ***There is NO exemption for small quantities for disturbance.***
   - **Lead** sampling should be conducted for all paint disturbance, especially loose & peeling paints, ceramic tile, soundproof sheeting, caulkings, structural steel primers, etc.
     - ***Any detectible lead concentration triggers OSHA required procedures during disturbance. There is NO exemption for small quantities.***
   - Identify **Universal Wastes** in project area – florescent/mercury vapor light tubes, PCB light ballasts, mercury HVAC switches, refrigerants, etc.
   - Identify **other conditions** that may become issues during the project – mold, evidence of water leaks, droppings, etc.
3. If asbestos, lead, or other environmental issue will be encountered, review project to determine alternate scopes to avoid impact. If alternates are not available, begin integrating an abatement design into the overall project scope, budget and schedule. Most abatement at bank facilities will occur after hours and/or on weekends.
4. Issue appropriate **environmental notifications** to architects/engineers/consultants, GC, trades and occupants. Notification to the GC and trades should be issued at the bid walk or announcement of the project.
5. Coordinate environmental scope and resources (ACC & abatement contractor) with occupant needs, building operations and construction activities. Allow for notification and permitting to regulatory agencies (typically 10 working days prior to the start of activities).
6. Begin project. Air sampling will typically be collected on most environmental projects. Air sampling is a primary method of documenting a safe work environment during the environmental activities and a final means to allow engineering controls to be removed. Air sampling results should be forwarded to any trades and occupants entering the removal area after abatement.
7. Obtain a **project closeout package** that includes the following:
   - Project dates, hours, parties involved, etc.
   - Scope of work (used to update the building's environmental inventory), including procedures, change conditions and any materials that were not able to be removed
   - List of newly discovered materials and their removal status
   - Waste manifests and recycling documentation
   - Daily inspection reports, etc.
   - Worker documentation
   - Worker, perimeter and post remediation (clearance) air sampling.

Indoor Environmental Quality (IEQ) Responses

1. Collect information of occupant concerns and/or building conditions (***use IEQ questionnaire***) and look for patterns:
   - When did situation start?
   - Where is the condition noticed (inside, outside, limited areas)?
   - Does it condition change over time? Worse or better when?
   - Describe the situation (i.e. odors, etc.) and symptoms
   - Review building cleanliness, HVAC system, roof, areas of concern.
2. Contact vendors to make adjustments/repairs if simple.
3. If source is unknown or situation is more complicated, contact ACC and other appropriate vendors to coordinate approach. Communicate all observations, occupant concerns, attempted repairs, and any planned activities to ensure complimentary investigation, repairs/responses and reporting of findings. ***Solving of IEQ issues tends to be a process of elimination.***
4. Communicate with occupants regularly.
5. Follow-up until resolved.

IEQ Communications with Occupants

Occupants affected by IEQ situations should receive regular updates on the course of actions for the IEQ investigation and expectations for resolution.

Remember to:

1. Acknowledge complaints in a timely manner and inform team management as to the expected response
2. Coordinate communication to occupants with appropriate Management. Summary to occupants should be worded in "plain english" in a manner occupants can understand.
3. Do NOT release actual survey reports unless authorized and or Management/Legal is consulted.

Environmental Records Management

All environmental records should be maintained for the life of the property (and in certain cases, a minimum of 30-years after the property/building has been demolished). Refer to internal records retention policies or consult appropriate legal advice.

The following information must be included in **asbestos survey reports** for proper entry into the database:

1. Material Descriptions (including size, color, pattern)
2. Material Locations
3. Quantity of Materials with Asbestos/Lead
4. Type & Concentration of Asbestos/Lead
5. EPA (NESHAPS) Material Category (asbestos specific)
6. OSHA Class of Work (relates to asbestos abatement activities)
7. Sample Numbers & Sample Location

Abatement documentation should include reference to the existing asbestos inventory and include specific **updates to material removal locations and quantities** (see item 7 under Project Planning). A summary of remaining materials should be provided by the abatement contractor under OSHA requirements.

Environmental Emergency Reference

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Water Emergencies (Potable Water)

1. Conduct Immediate Assessment – source, extent of damage, hazards (electrical, structural, biohazard, asbestos, etc.)
2. Isolate & vacate occupants if necessary
3. Stabilize source & hazards
4. Identify and call-out response resources – building engineers, janitorial, ACC, restoration contractor, environmental/biohazard contractor, GC & Trades for repair/replacement
5. Start Restoration
   - If not dry w/in 24-hours, remove & replace porous materials
   - Biohazards/Sewage/Asbestos/Mold/Other Hazardous Materials MUST be handled qualified vendors
6. Reassess Impacts within the first 4, 8, 12, 24, 48 and 72 hours based on impact, ability to dry/extract water, etc.
7. Plan for repairs and replacement. Do not cover over or enclose wet materials.
8. Conduct Repairs
9. Monitor for future problems (mold, etc.) once per week or as needed over the next month.

Sewage Emergencies

Follow water emergency steps with the following considerations:

1. Porous (including paper, etc.) materials MUST be removed and disposed
2. Use of a disinfectant and biocide required for all impacted materials remaining
3. Do not allow walking through or tracking of sewage. Establish controls for cleaning shoes, carts, equipment adjacent to the impact area
4. Adjust HVAC to full outside air to control odors. Fans and other drying equipment air flow should be directed away from occupied areas.

Water Emergency Categories

Water loss emergencies are divided into three categories:

Category 1 Water – "Clean" water from a sanitary or potable source and generally requires extraction and drying. Category 1 water may deteriorate into 2 or 3 below if interacts with a contaminant source, such as unsanitary building conditions, soil, etc. Initial response should be according to Potable Water Emergency Guidelines above. The presence of odors is a good indication of Category 1 water deterioration.

Category 2 Water – Water contaminated from dish washer, washing machines, overflow from clean toilet bowls, broken aquariums, etc. The water generally has some contaminant and would cause discomfort or sickness in humans if contacted or consumed. Previously known as "Gray" water. Respond according to Sewage Emergency Guidelines.

Category 3 Water – Grossly contaminated water which contains sewage, flood waters, water entering the building from outside ground surfaces, weather events, etc. Besides sewage, Category 3 water may carry silt, organic matter, pesticides, heavy metals, toxic or hazardous substances. Respond according to Sewage Emergency Guidelines.

Asbestos Spills

1. Vacate all occupants.
2. Shut down HVAC to area.
3. Physically isolate area. Restrict path of travel through area to prevent tracking of asbestos debris.
4. If spill is less than 3 SF, Class III trained workers (i.e. engineering staff with asbestos training and appropriate equipment) can respond.
5. If more than 3 SF, contact ACC and approved asbestos abatement contractor for response.
6. Air sampling is prudent for documentation purposes during response action to document safe reoccupancy. Air sampling is not a guarantee of "no exposure" of occupants at time of spill.

Post Fire Response (Environmental)

1. Coordinate restoration response with restoration vendor and GC.
2. Review Asbestos Summary for property/damaged area. Additional impact to asbestos-containing materials MUST be performed by licensed abatement contractor.
3. Map water and visible smoke damage, proceed with removal, cleaning, drying, etc.
   a. Porous materials (ceiling tile, upholstered furniture, papers, carpet, etc.) should be removed and discarded in visible moderate to heavily impacted areas.
   b. Lack of visible impact to materials is not an indication that cleaning or disposal is not warranted; as primary impacted materials are removed, lighter impacted materials may become obvious off-gassing/odor sources and should be addressed as appropriate.
4. Coordinate final restoration activities (HVAC cleaning, occupant concerns, etc. with appropriate parties.

Bodily Fluid Emergencies

1. Isolate area, move furniture or impacted item(s) out of public area if possible.
2. Contact ACC or approved biohazard vendor for response.
3. Adjust HVAC to full outside air to control odors. Fans and other drying equipment air flow should be directed away from occupied areas.
4. Porous (including paper, etc.) materials MUST be removed and discarded. Wastes will be handled by biohazard vendor.
5. Use of a disinfectant and biocide required for all impacted materials remaining.

ACC Contact Info

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