

CASE STUDY: ODOR FROM STORED, USED CLEANING MATERIAL/ITEMS

Project Description: Odor Investigation Bank Branch Employee Breakroom

Scope of Services: AET was contracted for emergency response services regarding the presence of noxious odors at a commercial bank facility. The specific areas of concern was reported to originate in the employee breakroom. The odor was characterized as a pungent, sewer-like smell or dead/decaying animal odor. The configuration of the breakroom is a 720 SF area (located behind the bank teller line) and includes an entry hallway, men's/women's restrooms and storage room. Interior building finishes includes concrete block walls, which are covered with sheetrock in some areas, lay-in ceiling tiles, and carpet squares on the floor. The entire facility is a free standing structure constructed slab on grade with a single floor level.

AET's Investigative Approach/Tools:

1. **Rule out vermin...** No evidence of rodent nesting, staining or droppings were noted, a key point when investigating areas with food and food storage. Typical accessway and paths were inspected including within the ceiling plenum area. Housekeeping and cleaning procedures were satisfactory.
2. **Rule out mold/water damage...** Visual inspection of the exposed finished surface of walls, floors and ceilings in the breakroom and adjacent areas found no water staining. Moisture measurements and imaging with a thermographic (IR) camera found no areas of excess residual moisture or temperature gradients where condensation can occur. Visual inspection within the ceiling plenum and restroom pipe chase (concealed areas) found evidence of historic moisture impact likely from prior roof leaks/penetrations. Further investigation and repairs to the plumbing system, sanitary lines and roof were recommended.
3. **Find the real odor source (Storage Room)...** Inventory inspection of potential odor sources including stored materials/items identified a bucket wrapped in two plastic bags containing a damp, decomposing cotton mophead. The mophead was obviously stored by the user following a previous cleaning and since forgotten. The odor from the bucket closely matched the odor within the Employee Breakroom and determined to be the source of the complaint.



CONCLUSION: Upon discovery of the improper stored material, AET removed the entirety of the bucket and mophead outdoors for disposal. Once the breakroom was ventilated, the associated odor complaints ceased. AET reported the finding, proactive response and discussed recommended actions to eliminate potential reoccurrence of the event.

AET's Experience: Indoor Air Quality (IAQ) or Odor Investigations, including odor source determinations, is a process of ruling out potential problem sources until the right solution is found. The odor cause in this case study was easy to rectify but could have also been overlooked. *Proactive/Preventative* IAQ measures and quick response to IAQ complaints are essential to maintain employee confidence regarding their health, safety and workplace environment. The right answers are critical to save on time and resources spent.

When you need professional IAQ advice email Alan Sutherland, CIH, CHMM at a.sutherland@aetinc.biz or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services on our website www.aetinc.biz.

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