

Case Study - Moisture/Mold Remediation - Water Permeating Below and Through the Concrete Floor Slab

Project Description: Certified Industrial Hygienist (CIH) Oversight - Mold Inspections, Project Design, Remediation, Restoration and Reconstruction.



Scope of Services: Accredited Environmental Technologies, Inc. (AET's) CIH staff was contracted to oversee restoration and reconstruction following a severe thunderstorm which resulted in the flooding of a large TV Production Studio, Office, Warehouse and Worldwide Distribution Facility. This facility operates 24/7. Tens of thousands of dollars in damages occurred to building materials and content when storm water permeated up through the concrete floor slab in a centralized location away from any perimeter foundation walls.

AET's Experience: Water pooling around raised foundations or cement slabs is a major problem waiting to happen. Water is heavy at 8.33lbs per gallon; a small pool containing 100 gallons exerts the weight of 833lbs. This weight creates a high hydrostatic pressure which can force its way under the foundation, concrete slab, or even into the wall cavity.

Moisture impact requires quick decision-making to remove standing water, determine specific building materials affected, and dispose vs. save specific site contents. Mold growth can commence within 24-48 hours of moisture impact. Remediation of building materials/contents and drying of affected materials to remain must commence ASAP. AET's investigative findings identified several problem areas associated with the roof stormwater conveyance system.

Mold Remediation - AET's CIH developed a Moisture/Mold Remediation Work Plan and coordinated the phasing of the remediation process. Work was performed in negative pressure containments, vented with HEPA filtration units. Individual work areas were individually inspected, moisture tested and mold spore air quality evaluated to verify the effectiveness and completeness of the remediation process. Reconstruction activities were also monitored for compliance with OSHA's Health and Safety Standards and to address/control odors, dusts, fumes and VOCs, released during work. Work was completed on a month schedule with minimal impact to normal business operations.

Final Corrective Actions - Included the installation of a new roof storm water drainage system. Additional roof drain collection points were added which fed to a new dedicated feeder system. A large french drain system was also installed.

When you need professional help or 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 we provide at our website www.aetinc.biz.