



Case Study

Case Study: Large Regional Health Care System | Toledo, Ohio (*client confidentiality preserved*)

Average Loss Amount: \$1,335,124.17

Type of Loss: Hospital basement sewage contamination

OVERVIEW

In early January of 2016, Cousino Restoration responded to a major sewage water flood in the basement of one of Toledo's crown jewel hospitals. The flood happened when City road crews broke the hospital's main discharge line while performing road repair work nearby. The flooding occurred overnight and contaminated most of the underground network of departments and rooms, including the lab, the pharmacy, and the surgical equipment sterilization unit for the entire system of regional hospitals and surgical centers. The daily loss of revenue was significant and required an immediate and intense remediation effort that met the hospital's many safety and health requirements.

Using a large remediation workforce, drawing on its specialized store of dry out and HEPA air-scrubbing equipment maintained only for medical facilities, and working with the hospital's large infection-control teams, Cousino Restoration was able to: (1) evacuate all the standing water within hours, (2) apply hospital-grade disinfectants on every surface (not just the floors) and across all the contents and furniture, (3) set up HEPA-air scrubbers, and (4) erect containment and institute careful precautionary safety measures to prevent cross contamination from bacterially-compromised areas. While the entire project took several months, the emergency remediation and infectious hazard abatement was completed within 10 days, allowing the system to resume its surgical equipment sterilization far more quickly than expected.

With projects like this, Cousino Restoration has developed a niche in partnering with hospital and health care facility systems to keep their buildings facilities, and patient care environments healthy, and frequently responds to emergencies involving flood, mold, and pathogenic outbreaks.

WORK PERFORMED

- **Project Design & Project Planning** – as noted above, Cousino Restoration assembled and worked with a large multi-disciplinary infectious outbreak safety team including client safety and health professionals, including administrative and medical staff, pathology and infectious disease physicians, hospital infection control specialists, inside and outside industrial hygienists, and contractor project managers, to design an immediate remediation plan.

- **Project Performance**– the emergency remediation and infectious hazard abatement was completed within 10 days, allowing the system to resume its surgical equipment sterilization far more quickly than expected. Successful completion required dozens or more of infection abatement technicians, hundreds of our own dryout fans, dehumidifiers, HEPA air scrubbers, and numerous critical containment barriers in high traffic areas, which had to be monitored.
- **Biohazard and Pathogen Emergency Response and Remediation and Cleanup, Decontamination, Response Mitigation** – not only did the affected areas need to be remediation and the workspace need to be maintained as safe, all operations had to be conducted so as to prevent cross contamination into patient care and public areas.
- **Analytical Services** – the Cousino Restoration team had to work with the infectious disease physicians and pathologists as well as hygienist consultants, to design a prototype process that was effective to kill the virus

CONTRACT MANAGEMENT

- **24/7 Response Capability** – project design and early implementation was emergent in nature and involved nearly around-the-clock response
- **Trained, Qualified, ER and Cleanup Personnel, Equipment and Materials** – this project required project managers and field staff trained and experienced in (1) biohazard response and remediation, and (2) working in hospitals and medical facilities that are subject to a wide range of internal and external infection control processes and rules; it also required offsite clean spaces, HEPA air-scrubbing equipment, and various biocidal chemicals and sanitizers.
- **Site-Related Documentation** – of disinfection processes and used v. cleaned mask loads, as well as onsite project accounting records.

Restoration Starts Here.

UNIQUE CHALLENGES

Many complexities and unique challenges were presented in repairing this building. Some of them include:

- Unexpected sewage flood in the basement of a Toledo, Ohio flagship hospital was caused by a city sewer line crew working on the street outside.
- Sewage water contaminated the hospital lab, pharmacy, equipment storage, and, most critically, centralized sterile processing unit for the entire regional health care system's surgical tools—effectively halting all surgical procedures across their entire system and costing them millions of dollars until sterilization operations could resume safely.
- Hospital basement was vast and complicated, having been built and rebuilt numerous times over 100+ years, and was used by staff continuously in a high-volume traffic pattern, making it difficult to erect and maintain infection containment.
- Hospital infection control team included doctors, nurses, administrative, and executive staff, requiring a sensitive balancing of competing interests of safety v. speed of production.

ACCOMPLISHMENTS

- Completed \$1.3 million emergency sewage floodwater abatement in the basement of a major Toledo, Ohio hospital and enabled client to resume critical surgical operations within 10 days.

PROJECT HIGHLIGHTS

- Assembled and guided multidisciplinary strike team within hours of loss, including client safety and health professionals, administrative and medical staff, pathology and infectious disease physicians, hospital infection control specialists, inside and outside industrial hygienists, and contractor project managers.

