POST-DISASTER CLEAN-UP: HURRICANE HARVEY
Weekly Regional Rainfall Totals
Valid: 08/30/2017 at 7 AM

This information is not official and should be considered an estimation.
Trace amounts are not shown.
Source: Advanced Hydrologic Prediction Service
Bridge over a bayou

Flood water reached top of bridge
Residents piled damaged belongings in front yards
“Please do not remove these damaged items. FEMA needs to see it.”
Flood water came up to here.
ICWUC
Center for Worker Health & Safety Education

Spanish Language Disaster Train the Trainer
Entrenar al Entrenador en Desastres en Español
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Limpieza después de Inundaciones

(POST-FLOOD CLEAN-UP)

Las inundaciones pueden causar la interrupción de los sistemas de purificación de agua y eliminación de aguas negras, el desbordamiento de depósitos de desechos tóxicos y el desprendimiento de productos químicos previamente almacenados sobre tierra. Aunque la mayoría de las inundaciones no ocasionan serios brotes de enfermedades transmisibles o de envenenamiento químico, pueden enfermar a los trabajadores y demás personas que entran en contacto con esas aguas contaminadas. Además, las zonas inundadas pueden traer consigo riesgos eléctricos o de incendio como resultado de los cables eléctricos derribados.
PROTECTING WORKER & OCCUPANT HEALTH

FROM SEWAGE IN FLOODWATERS

Catastrophic flooding, like that caused by Hurricane Sandy, can introduce sewage from external sources into the indoor environment. This sewage can pose serious health threats to building occupants and to cleanup and restoration workers.

Sewage is untreated water that contains raw animal or human body fluids, fecal matter or other organic contaminants. During and after Hurricane Sandy, untreated sewage mixed with storm water overwhelmed sewers, sewage treatment plants, and septic systems. It then saturated soil and entered flooded buildings and vehicles.

Sewage-contaminated floodwater may remain in a building for hours or days. During this time, it can penetrate and contaminate wood, gypsum, concrete, and other building materials. Whenever sewage is present, pathogens are present. Pathogens are disease-causing agents, which can be in the form of bacteria (such as e. coli), viruses, mold spores, or protozoans. These are normally present in large numbers in sewage wastes. Exposure can cause illnesses ranging from gastritis to dysentery, infectious hepatitis, and severe gastroenteritis.

In any flood cleanup, assume that pathogens are present and take appropriate precautions.
ICWUC Mold Awareness Training Kit

**PPE Ensemble:** Tyvek suits, boots, gloves, hardhat, goggles

**Respirators:**
- N95s
- Half Face with cartridges
- Full Face with cartridges

**Other Props:**
- If possible, vacuum wrapped samples of mold growth on leaves and paper for show and tell
- Electrical tester (voltage meter)
- Moisture Meter(s)
- Wood, drywall, and pressboard blocks for moisture meter demo
Lessons, Conclusions

- Need for continuous availability of disaster training (T-T-T)
- Training institutes (TNEC, OTI, etc.)
- Languages – Spanish, Vietnamese, Portuguese, etc.
Lessons, Conclusions

- Worker center staff/volunteers to be trained
- Train workers, volunteers in formal sessions
- Capacity to give immediate response/outreach to day laborers
Lessons, Conclusions

- Disaster response is an **opportunity**
- Develop skills in health/safety, organizing
- Develop, expand COSH/worker centers’ contacts/coalitions
- Community groups
- Experts
- Public officials
- Unions