

An Evaluation of OTA Chemical Safety and Climate Change Resiliency Services

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Explosion at Arkema Chemical Plant near Houston, Texas in August 2017 after Hurricane Harvey flooded the property and cut off power to the refrigeration system which was stabilizing hazardous chemicals.

Project Goal

To assess the effectiveness of the Office of Technical Assistance and Technology's chemical safety and climate change resiliency program, including trainings and site visits, and provide recommendations for improvements.

Objectives

- 1. Develop criteria for determining program effectiveness
- 2. Interview training and site visit participants to evaluate program based on identified criteria
- 3. Develop and deliver recommendations to the OTA for improving the program

The Social Problem

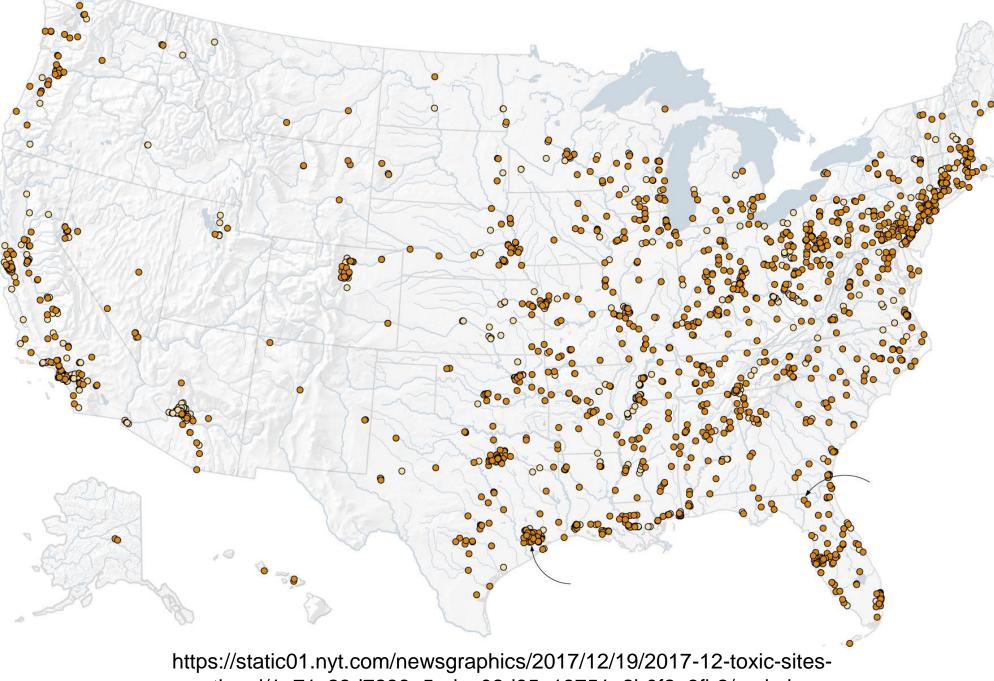
- Severe weather patterns cause flooding and can include spikes in wind gusts and heat
- Weather damage may induce power outages or other unsafe conditions at facilities using and storing toxic chemicals
- Major risks to toxic chemical using facilities
- Resulting disasters put entire communities in harm's way
- Toxics Use Reduction aims to reduce amounts of toxic chemicals on-site to increase safety

Criteria

not necessarily pertain to

specific criteria but were

significant and noteworthy



national/1e71c23d7238e5edce02d95e13751e2b0f2a3fb2/us-lg.jpg

A map of the toxic facilities that are vulnerable to flooding in the United States. Yellow indicates the facility is at moderate risk of flooding, while orange indicates the facility is at high risk of flooding.

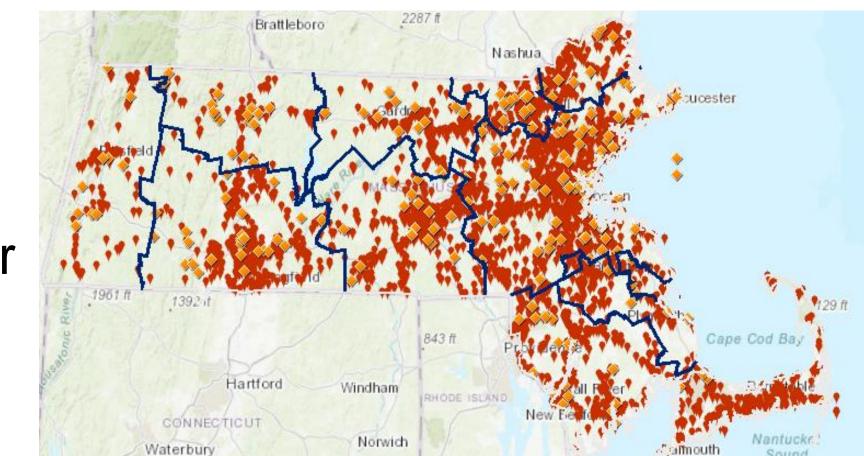
Recommendations for Improvement

surveying methods for

consistent data

The Massachusetts Office of Technical Assistance and Technology

- Provides free, confidential technical assistance for Massachusetts companies which use hazardous chemicals
- An Environmental Protection Agency grant allowed the OTA to partner with Regional Planning Agencies to offer statewide trainings on chemical safety and climate change resiliency
- First responders and municipal workers who attended were trained to identify chemical risk in their communities
- Toxics users were trained to identify vulnerabilities to climate change and severe weather in their companies



https://mass-eoeea.maps.arcgis.com/apps/OnePane/basic viewer/index.html?appid=36d72b75ad55454fb8a9c1af809fa92a

A map of toxics use sites in MA. Orange markers indicate National Pollutant Discharge Elimination (NPDE) discharge sites and red markers indicate EPA-marked Tier 2 sites.

Relevance of Services Attendees desire more OTA services are relevant Develop specialized to the needs of their clients Information provided directly benefits the organizations seeking help via OTA trainings or other severe weather Increase awareness for OTA services via PR Recommendations campaign OTA technical services Clients are able to make changes related to their Site visit process, their facility, their ecommendations were trainings, etc. without relevant to the Provide comprehensive being completely impeded company's needs support for clients implementing OTA by barriers (i.e. cost) suggested TUR OTA TUR OTA ability to provide changes recommendations are reasonable difficult to implement recommendations, sensitive to the needs of Include hands on the company with respect Trainings could benefit activities/ emergency to possible barriers from an active, hands drills in trainings on, or mock disaster scenario component There is a desire for a Increase accessibility of greater online presence online chemical **Client Satisfaction** database and TURI Trainings provide resources via OTA luable networking Clients are satisfied with opportunities OTA trainings and other services Companies are willing to work with OTA in the Develop online webinar future →versions of trainings for ease of access Companies are moving towards TUR without Additional Findings OTA assistance Utilize uniform These are results that do

Feedback collection is

neffective, incomplete

scattered

Findings

Have you implemented any changes or practices based upon what you learned at the OTA training? Yes 37.5% No 62.5% Would you ever invite the OTA back or use any of their services again? n=17

Quotes from Program Participants

- "OTA, TURA... are a win-win for companies"
- "OTA is a great resource to have"
- "One of the best kept secrets in Massachusetts"
- "For anybody not to take up some of their services... it's a no brainer"
- "For us, [OTA services were] very beneficial. We've made some terrific contacts, just in terms of knowing people who can get the information"
- "Thanks to our OTA connections, we were able to call in state OSHA... and I figure we probably got probably \$8,000 to \$12,000 worth of free industrial hygiene consulting"

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