



Tishman Environment
and Design Center



TISHMAN CENTER · SEPTEMBER 6, 2017

Common Sense Chemical Plant Safety Rule Could Prevent Catastrophes: An Interview with Mathy Stanislaus



“The Pruitt EPA is essentially putting local responders and local communities at risk by infinitely postponing common sense, widely accepted requirements.

Mathy Stanislaus

THE NEW SCHOOL
TISHMAN ENVIRONMENT
AND DESIGN CENTER

In the aftermath of Hurricane Harvey, there were a series of explosions at the Arkema chemical plant in Crosby, Texas on August 31st. We caught up with Visiting Scholar Mathy Stanislaus to discuss the connections between chemical safety rules, environmental justice, and Harvey.

Stanislaus served the head of the Office of Land and Emergency Management of the US EPA and chair of the Obama Administration’s [Chemical Facility Safety and Security Working Group](#) where he led the development and finalization of a rule to address chemical plant safety with a particular focus on protecting responders and residents. Stanislaus is a biochemical engineer and an environmental lawyer.

Read the full interview below:

Q: Given all of the reports we are seeing about the huge impacts of

Hurricane Harvey, what are some of the central health and safety concerns especially related to the information we are getting about chemical plant explosions and releases?

Well, it's a long-standing issue that I sought to address in the amended chemical plant safety rule known as the Risk Management Plan (RMP) rule. Chemical plants managed properly provide a productive economic value to society, and create jobs. Operating improperly, without transparency, chemical plants can be fatal and cause economic damage. Chemical facilities, particularly in Houston and Louisiana, are large complexes of facilities in close proximity to each other and proximity to communities. A catastrophic accident can result in death and injuries to responders by not knowing the particular risks of chemicals, as well as death or injury, forced evacuation, property damages as well as longer-term health issues from the episodic releases from chemical plants of adjacent residents. To give you a sense of impacts from chemical plants, look at those facilities that are subject to an RMP program under the Clean Air Act. Over the ten years, data show there are over 1,500 reportable accidents, over 400 of which had off-site impacts. It resulted in 59 deaths, over 17,000 people injured or seeking

medical treatment, over 500,000 people being evacuated or sheltered in place, and two billion dollars in property damages.

Q: Are there trends in terms of who is most impacted? What are the socioeconomic dynamics at play here?

In our close to five years of investigation and outreach throughout the country, including community meetings with local responders and preparedness officials, community residents, town officials and industry, a number of gaps were identified that creates risks. One significant gap that was identified was consultation with local responders to be fully informed of the risks of an accident to protect themselves in responding to the accident. Other local officials including those with land use, zoning and public safety responsibilities needed to know the risks in order to be able to make decisions regarding protecting community facilities such as housing, schools, and hospitals.

For example, in the West Texas disaster, local officials and local residents did not know the full risks of an explosion of the chemical facility and over the years housing was established immediately adjacent to the facility and was destroyed. Fence-line communities, which are disproportionately

communities of color and low-income communities, have direct risks from both explosions as well as potential ongoing or episodic releases. One of the big issues that we sought to address in the amendments to the RMP rule was making it easier for community residents to access existing public information for communities to properly evacuate themselves, shelter in place or know that an accident occurred. Communities like this are sometimes challenged by transportation: ingress and egress out of the community is a concern. This is particularly acute for the disabled, children and the elderly.

Q: To go back to something you've touched on already, can you briefly speak about the history and the current state of policy and regulations designed specifically to protect people?

We embarked on listening sessions around the country. I personally participated in all of those listening sessions, in communities that had chemical plants, and follow on direct, face to face meeting for close to five years. Based on this consultation we identified the top issues, and we sought comment on the top issues, and we engaged everyone from the community residents, local responders, and industry to identify gaps and best practices to advance

consistent safety practices by ALL chemical plants. We embarked on an amendment to begin to address the highest priority concerns regarding chemical plant safety.

A key priority was enhancing consultation with local responders to understand the risks, and who and how would respond to an accident. This was based on the finding that a number of accidents where there was an assumption by companies that the local government had the equipment and training to respond to the risks of a chemical accident which turned out not to be correct because the local responders were not consulted. In these circumstances chemical plant operators failed to communicate effectively with local responders in terms of fully conveying the hazards and how to fight an accident should it occur, and even basic things like who has responsibility, who has the proper equipment, should a respirator be needed to fight an accident involving a particular chemical or should a responder even approach a chemical plant because of the hazard of a chemical? These are common sense provisions that the best-performing companies do, and the Trump Administration's infinite postponement of this common sense requirement creates risk for responders. A second gap that we sought to address is community

residents easily accessing existing, publicly available information. This is information such as the hazard of chemicals, accident history, and the plans for responding to an accident.

And the question is, what is the importance of that information? Communities need to know that information so that they can participate in local planning efforts regarding evacuation plans and how to safely shelter in place. This is critical information for communities to understand. Low-income communities, the communities that tend to be at the fence line are even more challenged because they have transportation access issues, and a broader set of special vulnerabilities to be able to protect themselves.

Hospitals need to know how information to prepare for an accident. They may need to evacuate the hospital themselves. Then you need to make sure that they have adequate evacuation capability for patients who have special needs in an evacuation. Separately the hospital may need to have specific medication for the specific chemicals that a chemical plant could release so that if people are exposed, they have the proper medicine. Zoning and planning officials need to know this information to inform basic decisions such as whether a housing facility is adjacent to a chemical

facility or a future housing facility. I want to explicitly refute the claim that was repeated in the New York Times, by a representative of the very company that had its plant explode that confidential and security sensitive information would be required to be disclosed. The amended rule would provide easier access to community residents to *existing* public information – no additional information is being required to be sent to the public. That's it. The rule does not require disclosure of trade secret information, chemical volumes, or the location of the equipment on site. With respect to local preparedness officials, the rule requires that plant officials consult with them to determine the information that is necessary for them to develop emergency response plans – plant officials can explicitly protect confidential and security sensitive information. The leading companies who I met with, with their plant managers, do in fact engage the community. However, this is not true for all companies. Certain companies use what I would call the “boogeyman” of security risks and terrorism as a way of not providing information to communities that they need to know to protect themselves. And this view is then repeated by trade associations and then taken as gospel by certain

members of Congress. The assertion by the Pruitt EPA and chemical companies that the amended RMP rule would require the disclosure of confidential or security information is false. The general public is merely provided easier access to existing public information.

There's another aspect of the rule which is about prevention. It's about learning from accidents or near accidents and then redesigning the facility. As an example, the facility that blew up, the primary reason it blew up is they did not have power. Their primary power went out because of flooding. Their backup power went out because of flooding. And for those that claim it was unforeseen, to me, both as an engineer and as a former regulator, I think it's hard to defend that argument. We know that's an area that is vulnerable to flooding. We know that in Katrina, this issue arose in terms of vulnerability and making sure that you have enough and protected backup power to prevent catastrophic events. In Superstorm Sandy one of the primary findings was to redesign facilities so that energy sources are protected to run critical operations. This was a foreseeable event that should have been designed in the system. What the amended rule requires is what's called a Root Cause Analysis, a hard engineering analysis regarding

whether any changes are necessary to the chemical facility to prevent catastrophic events. While this requirement – if not delayed indefinitely by the Pruitt EPA – would not have applied to this specific chemical plant prior to the accident, the rule sets a standard and obligation for internalizing this prevention requirement into companies standard operating practice for the future. So we finalized the rule at the close of the Obama Administration in December of 2016. It was supposed to take effect a few months afterward. The Trump Administration comes into power, chemical companies and trade associations claim that they've not been consulted – despite 5 years of consultation. They also claim that there are security vulnerabilities – despite no additional information being provided to the public under the amended rule. The Trump Administration initially extended it for a few months, then for a year, and now it's extended to 2019, effectively a permanent extension.

Q: In your opinion, given the state we are in right now, what can or should be done to support environmental justice communities who are currently faced with the dual threats of flooding and toxic chemicals, both now and over the course of recovery, which we know will take months and years?

We need to institute this rule right now. That's the first thing we should do. The Pruitt EPA is essentially putting local responders and local communities at risk by infinitely postponing common sense, widely accepted requirements. More broadly, I believe that this another wake-up call to the chemical industry. The chemical industry does not live in isolation. It lives adjacent to communities at the fence line. Again, these are the most vulnerable communities in the Texas panhandle, and especially Louisiana. So there needs to be a broad and transparent process to look at vulnerabilities and what the chemical industry needs to do to protect communities, and frankly themselves, their workers, and frankly their bottom line. It makes no sense to me that the chemical plants would impact their bottom line as well as communities and workers to not put in place necessary measures of protection, realizing that flooding events like this are not going to be an exception. With climate change, we've seen the projections of increased flooding, of increased frequency and severity of issues, so there needs to be a broad and transparent conversation about what the facilities need to do to protect themselves and their neighbors. Special attention should be focused on those communities

that are challenged every day living at the fence line.

Q: Broadly, is there anything else that people should know about what is happening in communities that are impacted by Harvey, or how this could have been avoided or mitigated?

Let me talk a little bit about the politics of this. There's no reason that a chemical process cannot be designed and operated safely for foreseeable risks. From a technical perspective, there's no reason why enough precautions can't be put in place. The leading companies and the industry process safety professions, in fact, look at it this way. Some of the most progressive and informed recommendations regarding rigorous chemical plant safety requirements are those from the process safety professionals in the industry. The Center for Chemical Process Safety prioritizes ongoing learning, recommends approaching safety from a perspective of ongoing vulnerability, the critical importance of root cause analysis to prevent catastrophic events, and the importance of engaging local responders, and communities. In my view, there's a divide between the process safety professionals who are on the front lines of safety and the lobbying by trade associations that

essentially defend the status quo and
the poorest performing facilities.



Comments (0)

Newest First

Preview POST COMMENT...

PREVIOUS

**New Report: Waste Burning In Cement Kilns
and Coal Plants Exposes Businesses and Cities
to Controversy By Undermining Sustainability
Goals**

HIGHLIGHTS, NEWS

NEXT

**Houston! We Have a Situation: It Is Too Damn
Hot**

HIGHLIGHTS, NEWS