Op-Ed

Stewing Over Chemical Soups

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“THERE’S NO NEED TO TEST IT. . . . THERE’S MILLIONS OF contaminants.” So said a spokesperson for Houston’s Health Department as he reflected on the flooding and runoff caused by Hurricane Harvey from the nearly two dozen Superfund sites in and around the city.¹ The Gulf region, home to the nation’s chemical, oil, gas, and energy corporations, has long been a disaster waiting to happen. As the *Wall Street Journal* reported, more—perhaps many more—such poisonous catastrophes are awaiting as global warming makes for ever-more-powerful storms in the future.²

Displaced people, polluted water supplies, chemical plant explosions, and Superfund site overflows are just a few of the catastrophic events that will contribute to the ecological disasters in the Texas Gulf Coast communities and other communities affected by monster storms. The most immediate problems of food, water, and shelter may be temporarily addressed through massive infusions of money and resources into the area, but there are years of unforeseen problems to come. Rebuilding Beaumont, Port Arthur, and Houston are just the proverbial tip of the social, economic, political, health, psychological, and sociological iceberg awaiting those unable to make their lives whole or afford to escape—even as that toxic iceberg may be melting away.

But let’s get back to our health department official and his self-evident observation that we needn’t test the water to know it’s unsafe to drink, wade through or swim in, or even breathe near. Public health officials need to prepare against possible epidemics of Zika, yellow fever, and other mosquito-borne infectious threats. Cholera and typhoid epidemics, not seen in the United States for more than a century, are possible because the water supply and sewerage systems are compromised for 170,000 people living in Beaumont and Port Arthur. Their water treatment plant and the water supply are at least temporarily suspect and people are dependent on water bottles shipped in from outside. Organic hydrocarbons, pesticides, and other toxic materials seeping up from the

ground and out from the refineries and chemical plants constitute still another health threat.

We have little information about the host of long-term (or even intergenerational) problems Gulf residents will have to face in the future. That is because we don't really know which chemicals, or how much of them, are in the toxic stew. Certainly, there's plenty of lead, mercury, asbestos, and PCBs to poison children and adults living and working in the region. But what about chlorinated hydrocarbons, vinyl chloride monomers, butadiene styrene, acrylonitrile, plasticizers, and the host of polymers produced? Every year the chemical industry produces thousands of products with compounds whose impact on human health is barely understood: endocrine disrupting chemicals like bisphenol A; suspected carcinogens like polychlorinated biphenyls and other chlorinated hydrocarbons; synthetic resins; a host of neurotoxins used to make pesticides; and flame retardants commonly used in children's clothing, furniture, and bedding in virtually every American home (see www.toxicdocs.org). Sadly, Hurricane Harvey means we'll be conducting a vast human experiment for at least a generation as people move back in and children are born and grow up in and around Houston.

In the coming days, months, and years we are likely to hear a variety of explanations for the disaster, many revealing long-standing, often contradictory ideological tropes about the American spirit, the resilience of Texans, individual responsibility, and government inadequacies. Such glib responses will only become more intense as the political finger-pointing begins. Some will be aimed at absolving all of us from responsibility: the storm was an "act of God," a "once in a century—even millennial—event," an unparalleled "natural disaster," "unforeseeable." Others will similarly absolve us by distributing blame equally. We'll hear, "we're all" responsible, or, alternatively, "no one" can be held accountable, or that the government is to blame and needs to step in to clean up the mess and make things right again. Remarkably, we will naturalize the event, sooner or later arguing that "enough is enough," and that people who continue to complain need to get on with their lives.

But, we should ask ourselves whether this and other natural disasters are in fact "natural" in any sense of the word. After all, we built cities along the coast and allowed giant chemical firms to construct huge complexes in areas that we know are prone to these catastrophes. Even without attention to the increased power of tropical storms as a result

of the Gulf's warming, itself created by our dependence on fossil fuels, we have a long list of toxic, modern experiences beginning with the Great Galveston Hurricane of 1900 and continuing through Katrina, Rita, and Ike. That we would allow the chemical industry to build and rebuild in the Gulf region is itself irrational and unnatural. That we are already hearing the president announce that "the rebuilding will begin" and that it will "be bigger, better, stronger than ever before" is frightening in its simplicity, ignorance, or malevolence. He is saying this at the same time that he is announcing that the Federal Emergency Management Agency, the Environmental Protection Agency (EPA), and other federal agencies central to any planning effort are to have their budgets slashed.³

Ironically, the chemical corporations that are the primary polluters in the Gulf region have largely escaped the opprobrium that they so dearly deserve. We have collectively forgotten that just a few years ago the nation was consumed by watching oil pour into the Gulf from the BP Deepwater Horizon spill. We will forget that BP was fined \$31 billion after millions of gallons of oil poured into the Gulf; that Marathon Oil was fined \$372 million for environmental violations alone; and that Arkema, whose exploding organic peroxide storage tanks (and desperate decision to burn off the materials that *hadn't* exploded) mesmerized cable news networks for days, had been fined over \$1 million in workplace safety and environmental violations *before* that slow-motion catastrophe.⁴

As we watch events unfold, it is government that will be held to account for the failures of the clean-up effort, and government certainly is partly to blame. After all, following a previous explosion at chemical plants in West Texas, the response of the Texas state legislature was to pass legislation making it legal to keep the public in the dark about the synthetics and compounds produced in the chemical plants. This past June, the Trump administration rescinded an Obama EPA decision requiring that companies coordinate with local and state authorities by providing them information about materials and production processes in order to better plan in case of emergency. According to the *New York Times*, lobbying by the industry argued that coordination would be too costly and would "jeopardize trade secrets."⁵ Somehow, in our collective imagination, the industry that destroyed so many lives will once again be let off the hook. As I write this column we watch weather forecasts as Hurricane Irma heads for Florida, and Maria toward Puerto Rico and other Caribbean islands and wonder in disbelief if we're watching in

real time all that climate scientists have been predicting—and all that Congress', the White House's, the industry's, and the country's willful ignorance has wrought.

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