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Note

Connecticut's Crumbling Foundations: Legal Remedies and Legislative Responses

JACQUELINE T. BASHAW

Latent harms pose unique challenges for the legal system. Such issues are often referred to as long-tail issues, wherein the actual harmful chain of events is set in motion years before it is discovered and wreaks havoc. Asbestos is one example. Pyrrhotite is another.

A seemingly innocuous mineral, pyrrhotite has infiltrated Connecticut homes. Somewhere between 3,000 to 35,000 concrete foundations were poured in the state from 1983 to 2016, with varying amounts of pyrrhotite trapped within. These foundations have begun to deteriorate, costing homeowners thousands of dollars as their investments quite literally crumble beneath their feet. While the problem was little known in the 1980s, subsequent research has brought to light much more information about this mineral and its consequences for construction. Some of this research was inspired and necessitated by Connecticut's ongoing crisis.

As homeowners gradually became aware of this crisis, they sought relief through the various legal avenues available—imploring the torts system, their insurance providers, and the state and federal government for relief. While each system afforded discrete relief to homeowners, no system functioned perfectly. This Note surveys the relief these systems afforded to homeowners, evaluates each system's functionality, and observes opportunities for harmonizing and enhancing legal relief.

These findings will be particularly useful in confronting long-tail crises, including those which may be created, accelerated, or aggravated by climate catastrophe. Viewing this crisis as a model to assess how our existing legal systems can provide relief more effectively will better equip the state to confront future crises. By learning from previous crises how we can unite and mobilize our legal avenues as events unfold, we will be better prepared to respond to long-tail crises to come.

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Connecticut's Crumbling Foundations: Legal Remedies and Legislative Responses

JACQUELINE T. BASHAW [*]

I. CRUMBLING FOUNDATIONS? AN INTRODUCTION TO THE ISSUE

Walter Zaldwy built his home in Willington, Connecticut, in 1988.[1] He lived there comfortably until 2014 or 2015, when he noticed thin cracks beginning to spread across the home's foundation walls.[2] Zaldwy would soon learn that thousands of homeowners in northeastern Connecticut were similarly plagued by such cracking.[3] As concrete foundations tainted with pyrrhotite begin to deteriorate, map-like cracks slowly spider across the walls until they eventually crumble.[4] For Zaldwy, and his fellow residents, there was little the legal system could do to help.[5] "I spent a good part of my life trying to work and to achieve the American dream by owning the home to have it fall out from underneath me," Zaldwy said.[6]

Pyrrhotite is a naturally occurring iron sulfide mineral found in rock formations throughout the United States.[7] When these sulfides are exposed to water and air, "a series of chemical reactions convert the iron sulfides into other compounds."[8] The newly formed compounds "are a little bit bigger than the original ones" and over time these reactions cause the rock to expand.[9] When rocks containing pyrrhotite are used to pour concrete foundations, these reactions "break[] the concrete apart from the inside out"

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[*] J.D., University of Connecticut School of Law, May 2023. Thank you to Professor Bethany Berger, who provided invaluable assistance throughout the entirety of this process and believed in its promise from the outset. Thank you, as well, to Professors John Cogan, Jr., Kip Dwyer, Alexandra D. Lahav, Peter L. Lindseth, and Travis Pantin for their help and guidance. Many thanks to my peers on the *Connecticut Law Review* for their efforts from the inception of this project through its publication. Lastly, my sincerest gratitude and love to Joseph P. Fairweather, Charles E. Bashaw, Catherine F. Bashaw, and John C. Bashaw for their support.

[1] George Colli, *NBC Connecticut Troubleshooters Investigates Crumbling Foundations*, NBC CONN. [hereinafter Colli, *Troubleshooters*], https://www.nbcconnecticut.com/investigations/troubleshooters-investigation-crumbling-foundations-home-basement-concrete/61238 (Dec. 14, 2016, 5:03 PM).

[2] *Id.*

[3] *Id.*

[4] *Id.*

[5] *Id.*

[6] *Id.*

[7] *Id.*; JEFFREY L. MAUK ET AL., U.S. GEOLOGICAL SURV., FACT SHEET 2020–3017, PYRRHOTITE DISTRIBUTION IN THE CONTERMINOUS UNITED STATES, 2020 (2020), https://pubs.usgs.gov/fs/2020/3017/fs20203017.pdf; Andrew J. Concatelli, *Helping Connecticut Homeowners*, TRINITY REP., Spring 2018, at 14, 16, https://digitalrepository.trincoll.edu/cgi/viewcontent.cgi?article=2165&context=reporter.

[8] FEMA, CONNECTICUT'S CRUMBLING CONCRETE CASE STUDY 1 (2018), https://www.fema.gov/sites/default/files/2020-09/connecticut-crumbling-concrete_case-study.pdf; *see also* Colli, *Troubleshooters*, *supra* note 1; Concatelli, supra note 7, at 16–17.

[9] Concatelli, *supra* note 7, at 16; Colli, *Troubleshooters*, *supra* note 1.

in a process called "internal sulfate attack."[10] The concrete crumbles and deteriorates, jeopardizing the home's structural integrity.[11] Concrete containing even less than 0.3% pyrrhotite can threaten a home.[12] Since the chemical reactions require water and air, the "amount of water in [the] concrete at [the] time of installation" and the foundation's exposure to groundwater thereafter can "contribute to the [foundation's] failure or to the amount of time before failure."[13] While pyrrhotite is naturally found in rock formations, its impact on construction has only garnered observation since the mid-1950s.[14]

The Joseph J. Mottes Company (J.J. Mottes) opened for business in 1947.[15] The family business, based in Stafford Springs, Connecticut, "manufactur[ed] and [sold] ready mix concrete, septic products[,] and masonry supplies" to customers throughout the region.[16] In the 1980s, the company began sourcing its concrete aggregate from Becker's Quarry in nearby Willington.[17] The company used this local aggregate to pour concrete foundations throughout northeastern Connecticut and southern Massachusetts until 2015,[18] when Connecticut banned the use of the aggregate from Becker's Quarry for residential purposes.[19] Investigation

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[10] Concatelli, *supra* note 7, at 16.

[11] *Crumbling Foundations*, CONN. STATE DEP'T OF HOUS. [hereinafter CONN. STATE DEP'T OF HOUS.], https://portal.ct.gov/DOH/DOH/Programs/Crumbling-Foundations (last visited May 19, 2023).

[12] CAPITOL REGION COUNCIL OF GOV'TS, CRUMBLING FOUNDATIONS 3 (2016), http://crcog.org/wp-content/uploads/2016/07/Crumbling-Foundations-presentation-July-25-Final.pptx.

[13] STATE OF CONN. DEP'T OF CONSUMER PROT., REPORT ON DETERIORATING CONCRETE IN RESIDENTIAL FOUNDATIONS 1 (2016), https://portal.ct.gov/-/media/DCP/migrated-docs/ReportonDeterioratingConcreteinResidentialFoundationspdf.pdf.

[14] *How Do Pyrite and Pyrrhotite Damage Building Foundations?*, AM. GEOSCIENCES INST., https://www.americangeosciences.org/critical-issues/faq/how-do-pyrite-and-pyrrhotite-damage-building-foundations (last visited May 20, 2023) (discussing early observations of structural damage caused by the sulfides pyrite and pyrrhotite).

[15] Colli, *Troubleshooters*, *supra* note 1; *Joseph J. Mottes Company, The*, CT.GOV: BUS. RECS. SEARCH, https://service.ct.gov/business/s/onlinebusinesssearch?language=en_US (Search "Joseph J. Mottes" and click on first entry) (last visited May 19, 2023).

[16] Assurance of Voluntary Compliance at 1–2, *In re* Joseph J. Mottes Co. & Becker Constr. Co. (Conn. Att'y Gen. & Comm'r of Consumer Prot. May 9, 2016) [hereinafter 2016 AVC], https://portal.ct.gov/-/media/AG/Press_Releases/2016/20160509mottesbeckeravcpdf.pdf?la=en.

[17] FINAL REPORT OF THE SPECIAL COMMISSION TO STUDY THE FINANCIAL AND ECONOMIC IMPACTS OF CRUMBLING CONCRETE FOUNDATIONS DUE TO THE PRESENCE OF PYRRHOTITE, H.R. 191-4724, 1st Sess., at 8 (Mass. 2019) [hereinafter FINAL REPORT], https://malegislature.gov/Bills/191/HD4724.pdf; *JJ Mottes Response to Crumbling Foundations*, NBC CONN., https://www.nbcconnecticut.com/investigations/troubleshooters-jj-mottes-response-to-crumbling-foundations/59327 (Dec. 14, 2016, 5:20 PM).

[18] CONN. STATE DEP'T OF HOUS., *supra* note 11; Eric Bedner, *Massachusetts Looks to Connecticut for Concrete Advice on Concrete Issue*, J. INQUIRER, https://www.journalinquirer.com/article_a62d8384-33dc-11ea-8674-0f7a6b66952b.html (June 11, 2020).

[19] ALEX REGER, CONN. GEN. ASSEMB. OFF. OF LEGIS. RSCH., 2018-R-0239, CRUMBLING CONCRETE FOUNDATIONS IN CONNECTICUT 2 (2018), https://www.cga.ct.gov/2018/rpt/pdf/2018-R-0239.pdf; 2016 AVC, *supra* note 16, at 2.

revealed that the crushed stone in the quarry and the subsequently poured foundations contain pyrrhotite.[20]

Since 1983, when J.J. Mottes first poured concrete from Becker's Quarry, home foundations have deteriorated.[21] The Connecticut Department of Housing reports that the "telltale maplike cracking patterns"[22] of internal sulfate attack can take anywhere from ten to thirty years to appear,[23] though contractors say it "often take[s] longer than 15 years for the concrete to show signs of failure."[24] Accordingly, affected homeowners only gradually became aware of the issue.[25] For those with older foundations, like Walter Zaldwy, the problem is readily apparent—the "issue has plagued some homeowners for nearly 20 years."[26] But it was only in 2015 that the problem garnered widespread attention as the number of affected homes grew and NBC Connecticut launched a comprehensive investigation.[27] The true scope of the problem—the number of homes affected and the ultimate cost of remediation—remains unclear. Some estimate that around 3,000 to 5,000 homes are impacted,[28] but the Connecticut Department of Housing stated that "[u]pwards of 35,000 homes . . . are facing the potential for a failed concrete foundation."[29] J.J. Mottes poured its last foundations as recently as 2015, so the true number will only be determined over the next twenty-five years as these newer foundations age.[30]

This problem has no easy solution. FEMA reports that the "only safe and effective method to fix a home that has tested positive for pyrrhotite is to lift the house off the existing foundation and completely replace all the concrete."[31] This option is disruptive and expensive, costing the average homeowner around $150,000 to $200,000.[32] Some homeowners have tried

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[20] FEMA, *supra* note 8, at 1.

[21] Colli, *Troubleshooters*, *supra* note 1.

[22] Concatelli, *supra* note 7, at 15.

[23] CONN. STATE DEP'T OF HOUS., *supra* note 11.

[24] Colli, *Troubleshooters*, *supra* note 1.

[25] *Id.*

[26] *Id.*; George Colli, *Crumbling Foundations: Emails Reveal State Was Aware in 2008*, NBC CONN. [hereinafter Colli, *Emails Reveal*], https://www.nbcconnecticut.com/investigations/crumbling-foundations-all-hands-on-deck-says-dcp-commissioner/49508 (Dec. 14, 2016, 5:03 PM).

[27] *Id.*; *Editorial: Lessons from Canada on the Pyrrhotite Plague*, HARTFORD COURANT (Jan. 6, 2019, 4:18 PM), https://www.courant.com/2019/01/06/editorial-lessons-from-canada-on-the-pyrrhotite-plague.

[28] Memorandum from Michael Maglaras, Superintendent, Conn. Found. Sols. Indem. Co., Inc. [CFSIC], to the Bd. of Dirs. of CFSIC 9 (Sept. 29, 2021), https://crumblingfoundations.org/wp-content/uploads/2021/10/Memo_CFSIC_Annual_Report20212.pdf.

[29] CONN. STATE DEP'T OF HOUS., *supra* note 11.

[30] *Id.*

[31] FEMA, *supra* note 8, at 1.

[32] *Pub. Hearing of Mar. 8, 2019, Before the J. Comms. on Ins., Real Estate, & Plan. & Dev.*, 2019 Leg. 122 (Conn. 2019) [hereinafter *2019 Hearing*] (statement of Michael Maglaras), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 93 (2019) (stating that the average cost to fix a home entirely was $202,000 in 2019, while the average cost to replace just the concrete was $168,000); *see also* Editorial, *Help Is Coming for Crumbling Foundations, No Thanks to Feds and Insurers*,

less expensive solutions, such as injecting epoxy into the concrete "to weld together the cracks" or building new inner walls of concrete to bear weight and support the home should the original wall collapse.[33] However, the Connecticut Department of Consumer Protection warns that "[u]sing a short term fix or partial replacement may result in more repairs at a higher cost in the future."[34] Many Connecticut homeowners have been left with crumbling foundations, heavy financial burdens, immense stress, and few legal remedies.

Part II of this Note explores the legal systems and remedies that provided discrete relief to homeowners, each of which uniquely fell short. The Note focuses on: (1) the state's failure to regulate quarries and concrete producers; (2) the torts system's inability to adequately compensate victims or incentivize best practices; (3) the refusal of insurers to cover policyholders' claims; and (4) the state's appeals to the federal government for aid. Additionally, Part II sets out modifications that could allow each system to better assist homeowners, now and in the future.

Because the systems and remedies explored in Part II were ultimately unable to confront a crisis of this scope and nature, the legislature intervened, proposing at least seventy bills to address the issue. Part III turns to the Connecticut's legislature's response, assessing the relief provided to homeowners from 1983, when the first foundations were poured, to the present, with seven Public Acts in effect that directly address this crisis. Part III takes particular interest in the legislature's decisions to create a captive insurance company and to regulate quarries and concrete manufacturers, assessing the benefits and shortcomings of the policy and implementation. With some key adjustments, the successes of this legislation make it a promising solution to replicate in response to future crises.

While the systems in place are working, much can be done to perfect these systems and their response to latent harms. As other crises—especially those concerning property—become even more likely as the effects of climate change are understood and experienced, the United States' infrastructure ages, and more is learned about the technology and science underlying construction methods and materials, analysis of Connecticut's crumbling foundations can inform how decision makers and stakeholders navigate the crises to come.

HARTFORD COURANT (Oct. 16, 2018, 6:00 AM) [hereinafter *Help Is Coming*], https://www.courant.com/opinion/editorials/hc-ed-ct-money-not-enough-to-fix-crumbling-foundations-20181015-story.html (noting that the average cost to replace a foundation in 2018 was $185,000).

[33] George Colli, *Crumbling Foundations: Repair, Replace or Walk Away?*, NBC CONN., https://www.nbcconnecticut.com/investigations/crumbling-foundations-repair-replace-or-walk-away/1970034 (Dec. 12, 2016, 10:56 PM).

[34] CONN. DEP'T OF CONSUMER PROT., CONCRETE FOUNDATIONS: INFORMATION AND QUICK FACTS, https://portal.ct.gov/-/media/DCP/migrated-docs/ConcreteBrochurepdf.pdf (last visited May 20, 2023).

II. CONCRETE REMEDIES? AN ANALYSIS OF FIRST-RESPONDER LEGAL REMEDIES

Until Connecticut took legislative action in 2016,[35] homeowners affected by pyrrhotite damage lacked clear avenues for relief. Instead, homeowners tried various options, seeking relief from J.J. Mottes, from their insurers, and from the federal government. This Part analyzes and explains the inadequate regulatory landscape that precipitated this crisis before examining each avenue in turn. Particular attention is paid to why these avenues failed to provide complete relief and how they could offer more support to future homeowners affected by this crisis and others.

A. *Regulatory Failure? Regulating the Unknown*

Until pyrrhotite garnered more attention in Connecticut in 2015,[36] no efforts were made to regulate the mineral or its presence in concrete.[37] This lack of regulation ultimately hindered efforts to respond to this crisis, first as homeowners sought relief in the torts system[38] and later as legislators attempted to define workable standards for quarries and concrete manufacturers.[39] Pyrrhotite's effect on construction has been observed since the mid-1950s,[40] and a report conducted by researchers at the University of Connecticut noted that "[t]o the best knowledge of the authors, the first internal sulfate attack induced by sulfide containing aggregate was reported in the Oslo region of Norway" in 1959.[41] Since the 1950s, more international instances of internal sulfate attack have been identified.[42] Domestically, beyond Connecticut, "pyrite-induced swelling has been observed in Ohio, West Virginia, Pennsylvania, Missouri, Kansas, and Kentucky."[43] While

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[35] *See infra* Part III.

[36] Colli, *Troubleshooters*, *supra* note 1.

[37] *See* KAY WILLE & RUI ZHONG, UNIV. OF CONN., INVESTIGATING THE DETERIORATION OF BASEMENT WALLS MADE OF CONCRETE IN CT 16 (2016) ("Scientific knowledge of deteriorating concrete home foundations due to internal sulfate attack and secondary expansion is limited, as evidenced by the scarcity of written work [about the problem]."); *see also* Ana Paula Brandão Capraro et al., *Internal Attack by Sulphates in Cement Pastes and Mortars Dosed with Different Levels of Pyrite*, J. BLDG. PATHOLOGY & REHAB., Dec. 2017, art. 7, at 1, 2 (discussing the different international recommendations for the "maximum limits for the contamination of concrete structures by [sulfur] compounds" and noting that the American Concrete Institute set a "limit of 0.5% SO_3 content in the total aggregated mass" as of 1991); Letter from George Jepsen, Conn. Att'y Gen., to Gov. Dannel P. Malloy & Jonathan A. Harris, Comm'r, Conn. Dep't of Consumer Prot. 5 (July 7, 2016) [hereinafter Jepsen letter], https://portal.ct.gov/-/media/DCP/migrated-docs/AppendixBReportonDeterioratingConcretepdf.pdf ("No known regulatory body in the United States has restricted the amount of pyrrhotite in home foundation concrete.").

[38] *See infra* Section II.B.

[39] See i*nfra* Part III.

[40] *How Do Pyrite and Pyrrhotite Damage Building Foundations?*, *supra* note 14.

[41] WILLE & ZHONG, *supra* note 37, at 16.

[42] *Id.* at 16–17 (cataloging instances of sulfate attack in Canada and Spain); *How Do Pyrite and Pyrrhotite Damage Building Foundations?*, *supra* note 14 (noting instances of sulfate attack in Ireland, Wales, Namibia, and Japan).

[43] *How Do Pyrite and Pyrrhotite Damage Building Foundations?*, *supra* note 14.

standards regarding what constitutes acceptable amounts of pyrrhotite and other iron sulfide minerals in concrete have since developed internationally,[44] there remains no federal standard in the United States.[45]

The lack of scientific research and the lack of recognition by the construction industry have hindered efforts to develop comprehensive regulation. A 1984 article observed that pyritic shale comprises "[a] family of expansive materials that has caused significant damage to many structures, but has been widely overlooked."[46] The authors noted that "[i]n the past[,] damage to structures by expanding pyritic shale was not readily identified" but found that "[m]ore recently, . . . the problems associated with expansive pyritic shales have been better recognized."[47] However, decades later, researchers in 2009 again concluded that "the problem is generally not recognized by those in the construction industry and by a significant proportion of geotechnical engineers and geologists," and theorized that this could lead to "[u]ndocumented cases of structural damage."[48] As late as 2016, "[s]cientific knowledge of deteriorating concrete home foundations due to internal sulfate attack and secondary expansion [was] limited, as evidenced by the scarcity of written work, and there remain[ed] no broadly recognized scientific consensus about the problem."[49] Without scientific research or industry standards to lead the way, regulations would likely be difficult to design and impose, and indeed, "[n]o known regulatory body in

[44] *See* Brandão Capraro et al., *supra* note 37, at 2. Brandão Capraro et al. surveyed various international studies, regulations, and standards that suggest acceptable "maximum limits for the contamination of concrete structures by [sulfur] compounds." *Id.* A German study detailing such a standard was published in 1960, while the International Committee on Large Dams conducted a study in 1965. *Id.* Portugal had a regulation in place as early as 1971, while France set a standard in 1997 and Brazil in 2009. *Id.* The American Concrete Institute established a maximum limit in 1991. *Id.* However, in Ireland and the United Kingdom, for example, "[u]ntil the early 2000s most standards/guidance documents referred to appropriate levels of water soluble sulphate, as it was assumed that the problems were caused by dissolved sulphate moving into concrete in the groundwater." A. Brian Hawkins, *Engineering Implications of the Oxidation of Pyrite: An Overview, with Particular Reference to Ireland*, *in* IMPLICATIONS OF PYRITE OXIDATION FOR ENGINEERING WORKS 1, 61 (A. Brian Hawkins ed., 2013). Thus, while some countries developed standards as early as 1960, these guidelines have had to evolve as more research is conducted and more is understood.

[45] Jepsen letter, *supra* note 37, at 5. At the request of Connecticut's governor, the U.S. Army Corps of Engineers recommended "regulation of the amount of pyrrhotite allowed in concrete aggregates, and a standardized testing process for existing concrete foundations based on existing regulations currently in place in Canada and Europe" in 2018. FEMA, *supra* note 8, at 4.

[46] Dean D. Dubbé et al., *Expansive Pyritic Shales*, 993 TRANSP. RSCH. REC. 19, 19 (1984); *see also* Lee Davis Bryant, Geotechnical Problems with Pyritic Rock and Soil 3 (May 8, 2003) (M.S. thesis, Virginia Tech), https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.465.6175 (synthesizing reports from various sources on the "geotechnical problems with pyritic rock and soil").

[47] Dubbé et al., *supra* note 46, at 19.

[48] S.E. Hoover & D. Lehmann, *The Expansive Effects of Concentrated Pyritic Zones Within the Devonian Marcellus Shale Formation of North America*, 42 Q.J. ENG'G GEOLOGY & HYDROGEOLOGY 157, 157 (2009).

[49] *See* WILLE & ZHONG, *supra* note 37, at 16; *id.* at 17 (further noting that "only a limited number of scientists were aware of this problem before 1998").

the United States ha[d] restricted the amount of pyrrhotite in home foundation concrete" as of 2016.[50]

Still, as discussed further in Section II.D, other nations took much more proactive and conservative approaches.[51] In Ireland, as of August 2016, quarry aggregate "should be tested every 60 production days for total sulfur" and "[o]nly total sulfur below 0.1 percent is given the green light."[52] Similarly, a Canadian building standard has warned "against iron sulfides in concrete" since 1973, and an international regulatory standard issued by ASTM International in 2003 has also been cited in Canadian courts.[53] Meanwhile, "Connecticut [did not] require home construction companies to abide by this international standard,"[54] or any standard, until January 1, 2023—fifty years after the Canadian standard—when state regulations went into effect in Connecticut. The state's hesitance to regulate is more thoroughly addressed in Section III.B, but its approach became increasingly indefensible as more information came to light over the years about the dangers of iron sulfides. Connecticut's position undeniably had significant consequences for homeowners, who turned to the courts to seek relief from Becker's Quarry and J.J. Mottes as parties involved in the production and sale of a defective product.[55]

B. *Tortious Conduct? A Look at Products Liability Law*

As reports of the foundation crisis grew, consumers in Connecticut facing deteriorating foundations could pursue two types of tort claims against product sellers like J.J. Mottes: (1) products liability tort claims, asserted "against product sellers, including actions of negligence, strict liability and warranty, for harm caused by a product;"[56] and (2) claims

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[50] Jepsen letter, *supra* note 37, at 5; *see also* WILLE & ZHONG, *supra* note 37, at 18 ("American regulators have not responded to either scientific findings or incidents of sulfur attacks by enacting regulations in building codes or statutes that limit the amount of iron sulfides in concrete.").

[51] *See, e.g.*, CHRIS ROGERS, CANADIAN PRECAST/PRESTRESSED CONCRETE INST., WHAT'S NEW IN THE 2014 EDITION OF CSA A23.1 AND .2, at 9–10 (2014), https://www.cpci.ca/files/news_events/news/1414579688_1.pdf (explaining the revisions Canada made to its pre-existing standards in 2014); *see also Editorial: Crumbling Concrete Foundations in Canada Were Quickly Replaced. Why Not Here?*, HARTFORD COURANT (Jan. 13, 2019, 6:00 AM) [hereinafter *Why Not Here?*], https://www.courant.com/2019/01/13/editorial-crumbing-concrete-foundations-in-canada-were-quickly-replaced-why-not-here/; Carolyn Lumsden, Editorial, *How Ireland Protects Homeowners with Cracking Concrete*, HARTFORD COURANT (Apr. 22, 2019, 6:00 AM) [hereinafter Lumsden, *How Ireland Protects Homeowners*], https://www.courant.com/2019/04/22/how-ireland-protects-homeowners-with-cracking-concrete.

[52] Lumsden, *How Ireland Protects Homeowners*, *supra* note 51.

[53] *Why Not Here?*, *supra* note 51; Deguise c. Montminy, 2014 QCCS 2672 (Can.); ASTM Int'l, *Standard Guide for Petrographic Examination of Aggregates for Concrete*, ASTM C295-03 (March 2003).

[54] *Why Not Here?*, *supra* note 51.

[55] *Pub. Hearing of Feb. 19, 2016, Before the J. Standing Comm. on Plan. & Dev.*, 2016 Leg. 133 (Conn. 2016) [hereinafter *2016 Hearing*] (statement of Don Childree), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 134 (2016).

[56] CONN. GEN. STAT. § 52-572n (2023).

pursuant to the Connecticut Unfair Trade Practices Act (CUTPA).[57] Homeowners asserted both types of claims in response to the pyrrhotite crisis, but neither afforded relief. A key challenge homeowners faced was that these claims implicitly or explicitly required an awareness of pyrrhotite and its deleterious effect on concrete, but such awareness was practically nonexistent throughout much of the timeframe in which these claims could have been brought.[58] As mentioned, at this time there was "no broadly recognized scientific consensus about the problem," as "American regulators ha[d] not responded to either scientific findings or incidents of sulfur attacks by enacting regulations in building codes or statutes that limit the amount of iron sulfides in concrete,"[59] posing serious obstacles to tort claims, the success of which often requires some level of intent or foreseeability.[60] This Section first addresses valid questions of efficacy and fairness that this route raises before assessing both types of tort claims and their unique requirements, illustrating why homeowners were unable to successfully bring such claims and how the legislature could open these avenues to homeowners in the future.

Even had this remedy proven successful, it could perhaps only have provided limited relief as both J.J. Mottes and Becker's Quarry may have been judgment proof.[61] In 2016, Governor Dannel Malloy reported neither company had "substantial assets" and would be unable to provide significant financial relief.[62] Similarly, Connecticut Attorney General George Jepsen concluded that "[e]ven if a claim were successful, those entities could only provide a miniscule amount of financial aid to the affected homeowners."[63] However, state officials did not address what could be recovered through any insurance policies these companies maintained. Moreover, both Becker's Quarry and J.J. Mottes shared senior officials[64] and the quarry

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[57] *Id.* §§ 42-110a to -110q.

[58] *See, e.g.*, Tofolowsky v. Bilow, 34 Conn. L. Rptr. 322, 322–23 (Super. Ct. 2003); Jepsen letter, *supra* note 37, at 6; discussion *supra* Section II.A.

[59] WILLE & ZHONG, *supra* note 37, at 16, 18.

[60] CONN. GEN. STAT. § 52-572n; *see also* Keith N. Hylton, *Intent in Tort Law*, 44 VAL. U. L. REV. 1217, 1218–19 (2010).

[61] *See* Eric Bedner, *Malloy "Desperate to Help" with Crumbling Foundations*, J. INQUIRER (Sept. 19, 2016), https://www.journalinquirer.com/article_3a8da320-7e81-11e6-b769-4fe3ce61b2ae.html.

[62] *Id.*

[63] Minutes, Crumbling Foundations Comm., Town of South Windsor 3 (July 21, 2016), https://www.southwindsor-ct.gov/sites/g/files/vyhlif3831/f/minutes/7-21-16_crumbling_foundations_minutes.pdf; Eric Bedner, *Concrete Company Sold*, HARTFORD BUS. J. (Apr. 21, 2017) [hereinafter Bedner, *Concrete Company Sold*], https://www.hartfordbusiness.com/article/concrete-company-sold.

[64] *See* 2016 AVC, *supra* note 16, at 2–5 (illustrating that Diane L. Becker signed an Assurance of Voluntary Compliance with the State of Connecticut, in which Becker Construction agreed to stop selling "any material or product containing aggregate from Becker's Quarry for use in residential concrete foundations within the State of Connecticut" and J.J. Mottes similarly "agree[d] to forbear from selling any material or product containing aggregate from Becker's Quarry for" such use, as both the General Manager of Becker Construction Company and the President of the Joseph J. Mottes Company); *see also*

continued to operate through at least 2019,[65] cutting against the conclusion that these operational companies were insolvent. Clearly, the quarry had at least some assets that allowed it to continue operating. While these assets could not have compensated every homeowner, they would at least have aided the first homeowner to successfully bring suit. As Becker's Quarry only agreed to stop selling "any material or product containing aggregate from Becker's Quarry" for residential use in 2016,[66] there are still homeowners who could seek relief, and an even greater number should the legislature amend the statute of limitations.[67] Interpreting products liability law to provide relief to even a few affected homeowners would be worthwhile and would remove obstacles similarly barring future claimants responding to yet-unknown crises against perhaps more prosperous product sellers.[68]

This discussion also raises questions of fairness, warranting an inquiry into what level of culpability J.J. Mottes and Becker's Quarry should reasonably face. While pyrrhotite was not a well-known problem in the construction industry in the mid-1980s,[69] when J.J. Mottes began sourcing its concrete from Becker's Quarry,[70] and perhaps for years thereafter, as homeowners began to experience deteriorating foundations it seems probable that both companies gradually would have become aware of a problem with the quality and composition of the concrete, at least to some extent. Some reports suggest that J.J. Mottes was not exercising best business practices irrespective of any unique complications they faced from pyrrhotite.[71] However, this could also mean that the company did not

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Eric Bedner, *Close Relationship Between Concrete Company, Quarry Under Investigation*, J. INQUIRER, https://www.journalinquirer.com/article_8a653118-fcd8-11e5-8685-d7be54eb4df3.html (Jan. 7, 2019) (discussing the close connections between J.J. Mottes and Becker's Quarry). J.J. Mottes no longer operates—Connecticut Ready Mix bought the company in 2017. Bedner, *Concrete Company Sold*, *supra* note 63.

[65] *See* Assurance of Voluntary Compliance, *In re* Joseph J. Mottes Co. & Becker Constr. Co. (Conn. Att'y Gen. & Comm'r of Consumer Prot., June 27, 2019, https://www.southwindsor-ct.gov/sites/g/files/vyhlif3831/f/uploads/becker_avc_executed_dcp_final.pdf (evidencing that Becker's Quarry was operating as of June 27, 2019); *see also* CT.GOV: BUS. RECS. SEARCH, https://service.ct.gov/business/s/onlinebusinesssearch (click on "advanced search," then select "Business Address" from dropdown menu and search for "171 Tolland Turnpike") (last visited Jan. 20, 2023) (showing that five active companies in Connecticut listed their address as 171 Tolland Turnpike, Willington, CT 06279, the location of Becker's Quarry, and listed Diane L. Becker, former General Manager of Becker Construction Company and the President of the Joseph J. Mottes Company, as an agent or principal).

[66] 2016 AVC, *supra* note 16.

[67] *See infra* notes 90–95 and accompanying text.

[68] Awarding damages to even one homeowner would reduce their financial burden and would also reduce the overall cost of the crisis,thereby reducing the burden on all Connecticut homeowners, given the $12 surcharge the Connecticut legislature imposed to raise funds to help affected homeowners. *See infra* Section III.B.

[69] Dubbé et al., *supra* note 46.

[70] FINAL REPORT, *supra* note 17, at 8.

[71] *Former Employees Say Concrete Company's Practices Contributed to Crumbling Foundations*, NBC CONN., https://www.nbcconnecticut.com/news/local/former-employees-say-concrete-companys-practices-contributed-to-crumbling-foundations/106295/ (Aug. 12, 2016).

take homeowners' complaints as an indication that it had a unique complication on its hands. Regardless of what the companies involved knew or did not know, fairness and culpability do not always dictate the assignment of liability.

1. *Products Liability Claims*

Homeowners bringing products liability claims against J.J. Mottes and/or Becker's Quarry faced two key obstacles: (1) lack of knowledge at the time about pyrrhotite and its effect on concrete; and (2) the statute of limitations.[72] Robert and Linda Tofolowsky—perhaps the first homeowners to discover their defective foundation and the only ones to bring litigation against J.J. Mottes—faced both obstacles.[73] Frederick Bilow built the home in Tolland, Connecticut, hiring J.J. Mottes to pour its foundation in 1984, and the Tofolowskys moved in the next year.[74] It was not until 1993 that they noticed cracking in a basement wall,[75] and by 1995, the couple "noticed a tremendous amount of cracks and discoloration in the foundation."[76] After failed attempts to repair the foundation and rounds of testing, the Tofolowskys resorted to legal action in 1997, bringing a claim against Bilow for breach of implied warranty and a product liability claim against J.J. Mottes for supplying defective concrete.[77] At trial, neither parties' experts suspected pyrrhotite,[78] and ultimately neither Bilow nor J.J. Mottes were found liable.[79]

i. Statute of Limitations

Since the Tofolowskys' lawsuit, the public—particularly in Connecticut—has learned much more about pyrrhotite.[80] Yet in 1997, Connecticut products liability law made it nearly impossible to prevail given the lack of knowledge about the mineral at the time. Homeowners could assert a product liability tort claim "against product sellers, including actions of negligence, strict liability, and warranty, for harm caused by a product."[81] However, to prevail on such claims, plaintiffs like the Tofolowskys had "the burden to prove by a preponderance of the evidence . . . that . . . the product was in a defective condition unreasonably dangerous to the consumer or user

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[72] CONN. GEN. STAT. § 52-577a(a) (2023).

[73] *2019 Hearing*, *supra* note 32, at 61 (statement of Linda Tofolowsky), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 60 (2019). Tofolowsky described herself as "patient zero" of the pyrrhotite crisis. *Id.*

[74] Tofolowsky v. Bilow, 34 Conn. L. Rptr. 322, 323 (Super. Ct. 2003).

[75] *Id.*

[76] *Id.*

[77] *Id.* at 322.

[78] *Id.* at 324.

[79] *Id.* at 327.

[80] Colli, *Troubleshooters*, *supra* note 1.

[81] CONN. GEN. STAT. § 52-572n (1997).

[and] the defect caused the injury for which compensation was sought."[82] To show that a product is defective without being able to point to an exact defect or to illustrate how that defect can cause the resulting injury is incredibly difficult. Although the law does not require J.J. Mottes to have known the product was defective, it requires the plaintiff at trial to identify the defect.[83] As discussed, even in 2003, pyrrhotite was little known. Interestingly, iron sulfides were actually considered by the experts in *Tofolowsky*.[84] While there are no explicit mentions of "pyrrhotite," one expert noted a "slight possibility that sulfate attack could be occurring."[85] However, perhaps because of the unique composition of the samples taken, which by chance potentially presented lower levels of pyritic iron sulfides than other sections of the foundation, or a lesser focus paid to pyrrhotite at the time, the expert concluded that sulfate attack was "not suspected in these samples."[86] Instead, the experts pointed to other issues more commonly known to affect concrete at the time.[87] The Tofolowskys only learned in 2011 that pyrrhotite indeed caused their foundation to crumble, long after their claim was dismissed.[88]

That products can be defective for unknown or lesser-known reasons is an unfortunate reality and one without a real solution. Still, legislatures should ensure that products liability law reflects this reality and offer protection in other ways. Products liability law certainly tries to address this reality, but the solutions derived are not always flexible or extensive enough to resolve every issue that arises. While the public's lack of general knowledge and awareness of pyrrhotite hindered the Tofolowskys' efforts to seek relief, the statute of limitations also barred their efforts—even had the Tofolowskys pointed to pyrrhotite as the defect at play and presented unimpeachable evidence of J.J. Mottes' knowledge, the statute of limitations

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[82] *Tofolowsky*, 34 Conn. L. Rptr. at 325 (internal quotations omitted) (quoting Giglio v. Conn. Light & Power Co., 429 A.2d 486, 488 (1980)).

[83] *Id.*

[84] Alex Wood, *Company in Foundation Woes Won Only Court Trial Over Issue*, J. INQUIRER (Apr. 11, 2016), https://www.journalinquirer.com/article_5e386324-fffa-11e5-8a4b-d7272c07c273.html.

[85] *Id.*

[86] *Id.*

[87] The Tofolowskys' expert suspected concrete failure due to a lack of air-entrainment—the adding of air to the concrete mixture—and a high water-to-cement ratio, neither of which are technical defects, but both of which could make the foundation more susceptible to deterioration. *Tofolowsky*, 34 Conn. L. Rptr. at 324. The defendants' expert, meanwhile, suspected "improper workmanship of the foundation subcontractor." *Id.*

[88] Luke Hajdasz, *Crumbling Foundations: Up to 35,000 Homes in Connecticut Could Be Affected*, DAILY CAMPUS (Apr. 29, 2019), https://dailycampus.squarespace.com/stories/2019/4/29/crumbling-foundations-how-and-why-35000-homeowners-have-been-affected (noting that Tofolowsky learned her home had indeed been affected by pyrrhotite in 2011); Editorial, *Part 2: Who's to Blame for Crumbling Foundations?*, HARTFORD COURANT, https://www.courant.com/opinion/editorials/hc-ed-crumbling-foundations-blame-mottes-ct-dcf-20170528-story.html (Dec. 12, 2018, 2:26 PM); *2019 Hearing*, *supra* note 32, at 61 (statement of Linda Tofolowsky), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 60 (2019).

would have protected J.J. Mottes from any liability.[89] By amending the statute of limitations, Connecticut could both allow valid claims to proceed and offer homeowners more time to determine what exact defect has caused them injury.[90]

Per Connecticut General Statutes § 52-577a(a), "no [product liability] action may be brought . . . later than ten years from the date that the party *last parted* with possession or control of the product"—so no later than 1994 in the Tofolowskys' case, in which J.J. Mottes poured the foundation in 1984.[91] This barrier prevented the Tofolowskys from moving forward with their suit in 1997[92] and could likewise have deterred other homeowners affected by pyrrhotite.

The ten-year window to sue[93] is obviously too short for homeowners grappling with pyrrhotite-ridden foundations. Cracking due to the presence of pyrrhotite can take from ten to more than thirty years to appear, [94] so even the short end of the range is outside the ten-year window.[95] The time it takes homeowners to troubleshoot the issue, and perhaps to seek relief from the parties involved directly before commencing the lengthy litigation process, almost guarantees that few, if any, homeowners could ever successfully bring suit for a defective pyrrhotite-ridden foundation. Connecticut legislators, however, could amend the timeframe to allow any products liability claimant more time to sue. This would of course lead to less rosy consequences, likely in the form of increased costs to insure concrete companies. These costs would then be passed on to new homebuyers. Still, the costs that a few homeowners are facing now likely far exceed the diffuse burden these costs would impose on all new homebuyers, discourage concrete companies from taking inadequate precautions, and incentivize insurers to monitor these precautions to ensure appropriate safeguards are in place.

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[89] *Tofolowsky*, 34 Conn. L. Rptr. at 327 (concluding "the Plaintiffs' claim is barred by the statute of limitations").

[90] Such an amendment would not be unprecedented, as the time limit within which products liability claims "involving injury, death or property damage caused by contact with or exposure to asbestos" can be brought is thirty years for claims involving property damage and an impressive eighty years for claims involving personal injury or death. CONN. GEN. STAT. § 52-577a(e) (2023).

[91] *Id.* § 52-577a(a) (emphasis added). The Tofolowskys could have overcome the statute of limitations had they proven "that the harm occurred during the useful safe life of the product," but without such proof, the court found that the safe life for "liquid concrete is only about two hours." *Tofolowsky*, 34 Conn. L. Rptr. at 327; *see infra* notes 96–100 and accompanying text.

[92] *See id.*

[93] CONN. GEN. STAT. § 52-577a(a); *Tofolowsky*, 34 Conn. L. Rptr. at 327.

[94] CONN. STATE DEP'T OF HOUS., *supra* note 11.

[95] *See, e.g.*, *Tofolowsky*, 34 Conn. L. Rptr. at 327 (finding the foundation was built in 1984 and the homeowners first noticed "some minor cracking" with "no indication that it was causing any damage to their home" in 1993, then noticed "significant deterioration of their foundation such that they were required to repair it" in 1995, before suing in 1997).

ii. The "Useful Safe Life" Exception

The court in *Tofolowsky* did address an exception to the statute of limitations—the "useful safe life" exception of § 52-577a(c), which allows products liability claimants a longer time in which to bring a claim when the product caused harm after the ten-year limitation had expired but during its "useful safe life."[96] Applying the exception in *Tofolowsky*, the court considered the useful safe life of concrete. Focusing solely—and inexplicably—on liquid concrete, the court concluded that "the evidence established that the useful safe life of liquid concrete is only about two hours."[97] Therefore, the court found the Tofolowskys could not use this exception, as the two-hour useful safe life of their foundation had long since passed.[98] Thus, the statute of limitations still barred their claim.[99] As the Tofolowskys did "not attempt[] to provide such proof" of an extended safe life for liquid concrete, the court found it unnecessary to offer an in-depth explanation and accordingly did not elaborate as to how it concluded two hours was appropriate or what evidence specifically supported this determination.[100]

Regardless of the explanation the court found compelling, the statute should not have barred the Tofolowskys' action and the court's conclusion to the contrary seems plainly erroneous. Finding that the useful safe life of the Tofolowskys' concrete foundation had not expired is the sensible conclusion. The court did not explain its focus on liquid concrete, but this narrow focus was unwarranted. The Tofolowskys brought a claim concerning defective concrete generally, clearly complaining of the defects plaguing their foundation once it had solidified.[101] However, Bilow and Mottes "argue[d] that liquid concrete does not fall within the definition of product," and perhaps in responding to this defense, the court turned its attention exclusively to liquid concrete as the product at issue.[102] To take so

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[96] CONN. GEN. STAT. § 52-577a(c) ("The ten-year limitation . . . shall not apply to any product liability claim brought by a claimant who can prove that the harm occurred during the useful safe life of the product.").

[97] *Tofolowsky*, 34 Conn. L. Rptr. at 327.

[98] *Id.*

[99] *Id.*

[100] *Id.*

[101] *Id.* at 323.

[102] *Id.* at 325. No other reasoning seems to explain this shift. The court responded to the contention that liquid concrete was not a product by noting that Connecticut General Statutes § 42-115j(5) lists "concrete aggregates, concrete mixtures[,] and loose solid materials" as commodities, *id.*, but this does not justify the exclusive attention paid to liquid concrete.

The court also noted that the definition of "product" has been developed by case law in Connecticut. *Id.* (quoting Williams v. McDonald's of Torrington, 19 Conn. L. Rptr. 427, 427 (Super. Ct. 1997)). The court cites *Bobryk v. Lincoln Amusements, Inc.*, for one such definition of product; this case "defin[ed] [a] product [as] 'any item, thing, or commodity which, upon acquiring its physical existence and identity, through the process of manufacture or otherwise, is put in the stream of commerce either by sale, for use,

narrow a focus would be to eliminate any products liability claims pertaining to concrete, an unjust and nonsensical conclusion that cuts against the consumer-friendly purpose of the useful safe life exception. To the contrary, concrete is a particularly appropriate product to which to apply the useful safe life exception, as concrete foundations typically last over eighty years.[103] Without applying the useful safe life exception to concrete products, homeowners with crumbling foundations poured just eleven years prior would be without a remedy, even though they could have reasonably anticipated that their foundation would last another sixty-nine years.

Fortunately, since *Tofolowsky*, subsequent cases in Connecticut courts addressing the useful safe life exception have taken a much more level, realistic approach, allowing the correct amount of flexibility that the exception is intended to provide. *Tofolowsky* took a limited view of the exception, as did the court in *Ruggiero v. Geisel*. Construing the applicable statutes, including the useful safe life exception, the *Ruggiero* court found that products liability claims must be brought "within [] three year[s] . . . but not later than the ten year period."[104] In so concluding, the court worried that to hold otherwise would be to "require the court to conclude that a product liability claim may be brought at any time during the useful safe life of the product."[105] However, later courts have changed course and acknowledged that this is the outcome the legislature intended. For example, the federal District Court in Connecticut referred to the provision in *Mancinone v. Allstate Insurance Co.*, noting that "the Connecticut Appellate Court has used the phrase interchangeably with 'normal life expectancy,'" even though the useful safe life of the product causing harm in that case had expired.[106] Similarly, the Connecticut Superior Court in *Moran v. Eastern Equipment* appropriately applied the exception, refusing to dismiss a claim based on the statute of limitations because the claimant argued the wheel loader that injured him was within its useful safe life, even though the loader had parted with the defendant more than ten years prior.[107] The Appellate Court of Connecticut upheld this finding.[108]

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consumption or resale or by lease or bailment.'" *Id.* (quoting *Bobryk*, 15 Conn. L. Rptr. 617, 619 (Super. Ct. 1996)). Still, while the concrete's "physical existence" was once liquid, this definition does not seem to require that the product's physical existence remain unchanged or that the product of discussion could not simply be "concrete" without regard to its liquid or solid state. Nor do any of the other definitions cited necessitate such a focus, leaving the court's narrow focus unexplained.

[103] Broderick Perkins, *Life Expectancy of Home Components*, REALTY TIMES (Jan. 9, 2008, 4:00 PM), https://realtytimes.com/consumeradvice/homeownersadvice/item/5895-20080110_lifeexpect.

[104] Ruggiero v. Geisel, No. CV92 03 98 82S, 1994 WL 401271, at *1 (Conn. Super. Ct. July 28, 1994) (quoting CONN. GEN. STAT. § 52-577a(a)).

[105] *Id.*

[106] Mancinone v. Allstate Ins. Co., No. 20-cv-00082, 2020 WL 5709675, at *6 (D. Conn. Sept. 24, 2020) (quoting Hubbard-Hall, Inc. v. Monsanto Co., 98 F. Supp. 3d 480, 484 (D. Conn. 2015)).

[107] Moran v. E. Equip., No. CV 970256371S, 2000 WL 739666, at *2 (Conn. Super. Ct. May 25, 2000).

[108] Moran v. E. Equip. Sales, Inc., 818 A.2d 848, 852 (Conn. App. Ct. 2003).

More recently, courts have continued to apply the exception correctly, acknowledging that it extends the window of time in which claimants can bring products liability claims. In *Wilson v. Thyssenkrupp Elevator Corp.*, the court denied a motion for summary judgment in which the claimant was injured "nearly sixteen years [after the defendant] parted with possession and control of the elevator."[109] Similarly, in *Howell v. Aromatique, Inc.*, the court again correctly applied the exception, denying summary judgment because whether a candle's useful safe life had expired when "more than ten years [had] passed from the date [the defendant] parted with possession and control of the candle" was a genuine issue of material fact that remained in dispute.[110] Clearly, courts are no longer taking the approach put forth in *Tofolowsky* or *Ruggiero* and instead have corrected course to allow claimants more time to bring suit when encountering products they reasonably anticipate will operate effectively for years to come.

This shift in the court's interpretation of the useful safe life provision is especially important because the consequences can be great when a court finds a seemingly absurd useful safe life, or when legislatures craft rigid statutes of limitation in general. When a legislature constrains a statute of limitation or a court reads it narrowly, it signals to plaintiffs—but more importantly to attorneys—that the court is unwilling to entertain certain suits. Plaintiffs bringing lawsuits regarding any defective concrete are deterred from pursuing action by rulings such as *Tofolowsky* and *Ruggiero*. Given the contingency fee structure under which many attorneys operate, such rulings deter lawyers from even attempting to litigate, knowing a return on their work is unlikely.[111] Thus, while an inflexible ten-year statute of limitations may seem reasonable, and one failure to correctly apply the useful safe life exception may seem innocuous, both can have a lasting impact on plaintiffs seeking relief in the torts system.

2. *Connecticut Unfair Trade Practices Act (CUTPA) Claims*

While the Tofolowskys at least made it to court under their product liability claim, the limitations of the Connecticut Unfair Trade Practices Act did not open the door to a suit. Connecticut's Attorney General at the time, George Jepsen, concluded that there was "no basis to file a successful claim against Becker Construction and J.J. Mottes Concrete for an unfair trade practice."[112] To show that a company's practice is deceptive or unfair under CUTPA, the state or claimants must show "(1) [that] the practice, without necessarily having been previously considered unlawful, offends public policy . . . ; (2) [that the practice] is immoral, unethical, oppressive, or

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[109] Wilson v. ThyssenKrupp Elevator Corp., 48 Conn. L. Rptr. 22, 24 (Super. Ct. 2009).

[110] Howell v. Aromatique, Inc., 63 Conn. L. Rptr. 562, 565 (Super. Ct. 2016).

[111] Elihu Inselbuch, *Contingent Fees and Tort Reform: A Reassessment and Reality Check*, LAW & CONTEMP. PROBS., Spring/Summer 2001, at 175, 182.

[112] Minutes, *supra* note 63; Bedner, *Concrete Company Sold*, *supra* note 63.

unscrupulous; [or] (3) [that the practice] causes substantial injury to consumers."[113] Further, claims that do "cause[] substantial injury to consumers" must be accompanied by "improper conduct by the defendants"—it is not enough to simply cause harm without a showing of improper conduct.[114] Pyrrhotite was clearly not at front of mind in the concrete industry as these foundations were poured and remains a lesser-understood issue today. Whether J.J. Mottes was aware of this issue is unknown.[115] Still, Jepsen concluded the state would not likely prevail under CUTPA, finding that "it does not appear that those involved . . . knew or should have known of the risks of pyrrhotite in concrete, and thus it cannot be proved that they misled consumers about such risks."[116]

C. *Unreasonable Expectations? Insurers Deny Claims*

Homeowners also sought relief from their insurance companies, hoping their homeowners policies would cover their defective foundations and the ensuing damage to their homes. This pursuit returned homeowners to the courts and left them without relief. Hundreds of policyholders have brought legal action against their insurers,[117] but the courts have consistently found the policy language bars coverage.[118] Some of the obstacles that prevented the insurance system from providing perfect relief to homeowners speak to much larger issues in the world of insurance law, such as the frequent failure of insureds to read their policies and the murky parameters of the reasonable expectations doctrine. Still, Connecticut's insurers, officials, and legislature can take action to allow this imperfect system to provide more perfect relief.

1. *The Court Construes Collapse*

Insurers wrote policies in the 1980s and earlier that seemingly would cover the kinds of collapses that would soon threaten thousands of homes in northeastern Connecticut. Insurers agreed to cover ensuing damage if a policyholder's insured home collapsed. One typical policy of this time read: "This policy does not insure against loss . . . by . . . settling, cracking, shrinkage, bulging or expansion of pavements, patios, foundations, walls, floors, roofs or ceilings . . . unless . . . collapse of a building . . . not otherwise excluded ensues, then this policy shall cover only such ensuing loss."[119] This

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[113] Cheshire Mortg. Serv., Inc. v. Montes, 612 A.2d 1130, 1143 (Conn. 1992) (discussed in Jepsen letter, *supra* note 37, at 5–6).

[114] Jepsen letter, *supra* note 37, at 6.

[115] *See supra* notes 69–71 and accompanying text.

[116] Jepsen letter, *supra* note 37, at 6.

[117] *See* Robert Laurie & Vincent Vitkowsky, *Connecticut Courts Issue Rulings in the Crumbling Foundation Cases*, IR GLOB. (Nov. 25, 2019), https://www.irglobal.com/article/connecticut-courts-issue-rulings-in-the-crumbling-foundation-cases/.

[118] *See* Jim Sams, *Conn. Supreme Court Finds Insurers Not Liable for Crumbling Foundations*, CLAIMS J. (Nov. 14, 2019), https://www.claimsjournal.com/news/east/2019/11/14/294079.htm.

[119] Beach v. Middlesex Mut. Assurance Co., 532 A.2d 1297, 1299 (Conn. 1987).

language would seem to cover ensuing collapse, unless otherwise excluded, without reference to any temporal limitation. Determining exactly what insurers covered when such collapses occurred is difficult to ascertain, but there appears to have been little dispute surrounding such claims, or the coverage policyholders sought and that insurers intended to provide, until the late 1980s.

The Connecticut Supreme Court defined a "collapse" as it pertains to a standard homeowners' insurance policy in *Beach v. Middlesex Mutual Assurance Co.* in 1987.[120] The Beaches sought to require Middlesex to provide coverage under their insurance policy after their home's foundation began to collapse,[121] likely due to the home's construction on a steep slope rather than any connection to pyrrhotite.[122] The Supreme Court found a "collapse" encompassed a "substantial impairment of the structural integrity of a building."[123] This broad definition would have likely protected homeowners with crumbling foundations had insurers not amended their policies. However, after *Beach* was decided and as "other similar cases" mounted thereafter,[124] insurers found, or at least later put forth, that such a broad definition went beyond the bounds of the originally intended coverage and amended their policies to rein in coverage.[125]

Many insurers in Connecticut took steps to limit coverage to homeowners facing collapse from the mid-1990s to the early 2000s.[126] Insurers imposed a narrow definition of collapse and other such limiting language into their policies, often covering "abrupt" or imminent collapses, but excluding coverage for any "building or any part of a building that is in danger of falling down or caving in" and inserting other such limitations.[127]

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[120] *Id.* at 1300.

[121] *Id.* at 1298.

[122] *Id.*

[123] *Id.* at 1300.

[124] Eric Bedner, *Crumbled Insurance: Commissioner Defends Change Excluding Failing Foundations*, J. INQUIRER (Aug. 30, 2017) [hereinafter Bedner, *Crumbled Insurance*], https://www.journalinquirer.com/article_bc43dbc8-8d8f-11e7-a4ac-533ecc022911.html.

[125] *Id.*

[126] *2019 Hearing*, *supra* note 32, at 138 (statement of Keith Yagaloff), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 109 (2019) (identifying the time that the Insurance Services Office (ISO) submitted its proposed changes to the standard policy language to insurance companies, and in which insurers in turn submitted these changes to the State Insurance Commission, as "right around 2000 to 2002"); Bedner, *Crumbled Insurance*, *supra* note 124 (noting that "the Insurance Services Office, an advisory organization that drafts homeowner policy language throughout the nation, periodically amends language to clarify coverage intent," and asserting that the ISO changed the policy language pertaining to collapse "[i]n the mid-1990s and early 2000s").

[127] Amendatory Endorsement, Liberty Mut. Ins. Grp., May 2003, at 1 (on file with author); *see also* *2019 Hearing*, *supra* note 32, at 138 (statement of Keith Yagaloff), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 109 (2019); Homeowners Special Form, Penn. Gen. Ins. Co., Apr. 1, 2004, at 5 (on file with author); Karas v. Liberty Ins. Corp., 228 A.3d 1012, 1027–29 (Conn. 2019) (agreeing with "well reasoned cases" that "require[d] that a building be in imminent danger of falling down and therefore unsafe for its intended purpose" and concluding that "the substantial impairment

For example, Pennsylvania General Insurance Company's homeowner's policy as of April 1, 2004, states that a "building or any part of a building that is standing is not considered to be in a state of collapse even if it shows evidence of cracking, bulging, sagging, bending, leaning, settling, shrinkage or expansion."[128] Most claims relating to pyrrhotite-ridden foundations are therefore no longer covered unless collapse is truly imminent.[129] FEMA confirmed that "[m]ost insurance companies will not cover a foundation collapse that occurs slowly over time (as opposed to a sudden, devastating collapse), forcing affected homeowners to pay for repairs out-of-pocket or absorb the lost value of their home."[130]

The federal District Court in Connecticut returned to *Beach* in 2017 in *Clough v. Allstate Insurance Co*.[131] There, two insureds facing a deteriorating home foundation alleged violations pertaining to Allstate's "denial of coverage for [the Cloughs'] claim to cover the cost of [their] crumbling house foundation."[132] While pyrrhotite is not referenced explicitly, it was indeed at issue, as the Cloughs' amended complaint notes the cracking in their foundation "was due to a chemical compound found in certain concrete basement and frost walls . . . with concrete most likely from the J.J. Mottes Concrete Company."[133] In defining collapse, the court returned to *Beach* and noted that the court there had held:

> that the term "collapse," if not otherwise defined in a policy, has a broad meaning, that it need not be "of a sudden and catastrophic nature" and that it includes any "substantial impairment of the structural integrity of a building" that "subsequently develops out of a loss that appeared, at its inception, to fall within the rubric of 'settling, cracking, shrinkage, bulging, or expansion.'"[134]

While *Beach*'s broad definition would seemingly cover the Cloughs' collapsing foundation, the court noted that "[i]nsurers have avoided this expansive scope of 'collapse' by utilizing a more specific definition in their policies."[135] Accordingly, Allstate had "chosen to limit coverage by requiring that collapse be 'sudden and accidental,' and in doing so ha[d]

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standard may [not] be satisfied merely by evidence that a building will eventually fall down, even if it is in no present danger of doing so, and likely can be safely occupied for years, if not decades, into the future.").

[128] Homeowners Special Form, *supra* note 127.

[129] FEMA, *supra* note 8, at 2.

[130] *Id.*

[131] Clough v. Allstate Ins. Co., 279 F. Supp. 3d 387, 393 (D. Conn. 2017).

[132] *Id.* at 389.

[133] First Amended Complaint at 3, *Clough*, 279 F. Supp. 3d 387 (No. 17-cv-00140), 2017 WL 2927930. This reference also illustrates the growing awareness of the problem in Connecticut in the 2010s.

[134] *Clough*, 279 F. Supp. 3d at 393 (quoting Beach v. Middlesex Mut. Assurance Co., 532 A.2d 1297, 1300 (Conn. 1987)).

[135] *Id.*

effectively foreclosed [the Cloughs'] claim at this time."[136] The claims of many others have also been foreclosed by such narrow language in their insurance contracts.[137]

Insurers in the United States are subject to regulation on a state-by-state basis.[138] For insurers to change their policies in Connecticut, the state's Department of Insurance must approve the changes.[139] Therefore, the state sanctioned these revisions, contributing to the resulting frustrations between insurers and insureds.[140] When the Department of Insurance reviews proposed policies, both the Insurance Commissioner and their staff are authorized to approve these changes.[141] In 2017, Insurance Commissioner Katharine Wade said that the Insurance Department had reviewed the changes in 2005 and determined they complied with state law.[142] These changes and the resulting limitations on coverage have understandably frustrated homeowners with deteriorating foundations. While insurers cannot endlessly mitigate unanticipated risks, the notice insurers must provide to policyholders while implementing this change in coverage merits consideration, as does the fairness of denying coverage to homeowners who paid their premiums and expected coverage. Although state regulation contributed to this dispute, state action also opens avenues through which this system can be improved. After laying out the arguments of both insurers and the insureds, I will propose suggestions for such regulation that could prevent such disputes from arising anew in the future.

2. *Reasonable Expectations or Illusory Coverage?*

Policyholders whose insurers refused to provide coverage were understandably upset.[143] Currently, "[s]tandard homeowner policies generally cover a collapse caused by a sudden and accidental occurrence unless the policyholder was aware of the deterioration prior to collapse"—a standard that essentially provides no relief to homeowners affected by pyrrhotite.[144] Attorney Keith Yagaloff, speaking before the Joint

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[136] *Id.*

[137] Sams, *supra* note 118 (noting the Connecticut Supreme Court has continued to side with insurers, finding policyholders' claims barred unless "the insured homes [are] in imminent danger of collapse").

[138] Arielle Levin Becker, *Former Cigna Lobbyist to Lead Insurance Department*, CT MIRROR (Mar. 20, 2015, 2:34 PM), https://ctmirror.org/2015/03/20/former-cigna-lobbyist-to-lead-insurance-department/.

[139] Bedner, *Crumbled Insurance*, *supra* note 124.

[140] *Id.*

[141] *Id.*

[142] *Id.*

[143] *See 2016 Hearing*, *supra* note 55, at 390 (statement of Timothy Heim), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 251 (2016) (describing Heim's experience as a homeowner affected by pyrrhotite with a "home [that] will cost $173,000 to repair" without the assistance of insurance, and that his insurer "finally made a decision and denied [coverage] after delaying [its response] for six months."). Attorney Brenda A. Draghi explained that many homeowners' "insurance would not cover [repairs], and [homeowners have] either had to abandon their homes or replace their basements at their own expense!" *Id.* at 366.

[144] Bedner, *Crumbled Insurance*, *supra* note 124.

Committees on Insurance, Real Estate, and Planning and Development of the Connecticut General Assembly, asserted that this shift in policy language to exclude coverage took place sometime between 2000 and 2002.[145] Homeowners have since expressed their frustration to the legislature.[146] Martin R. Fortin, for example, wrote to the Judiciary Committee that besides the emotional devastation he faced upon learning his foundation was crumbling, insurance companies' "use of the term[] 'in peril of imminent collapse' . . . [that] allow[ed] them to avoid paying for this issue was another kick in the stomach."[147] He continued: "These companies have the resources to fight the little guy and crush them further financially. . . . Perhaps this [outcome] is contractually lawful, but it is certainly unjust."[148] Fortin added that while he was retired, he "now . . . work[s] full time to pay lawyer's fees" in his suit against his insurer.[149] Fortin's frustrations were echoed by his fellow homeowners who also submitted letters to the Joint Committee on Judiciary in March 2018.[150] The letters were in support of Senate Bill 518, which proposed that Connecticut require homeowners insurance to cover the "peril of collapse," including "impairment of the structural integrity of all or part of the covered dwelling, where such impairment arises from factors including . . . decay . . . or [] defective materials or construction methods."[151] While the Judiciary Committee did not vote this bill out of committee,[152] it reflected homeowners' frustrations and their efforts to change insurance coverage going forward.

Homeowners also claimed that their "insurers changed policy language to exclude crumbling foundations and other risks without appropriate notice."[153] Speaking in support of S.B. 518, Patricia and Joe Neafsey wrote, "We have purchased homeowners insurance policies annually from the same company since 1979. We were never informed of the subtle language changes that excluded coverage for this type of hazard. We assumed we were

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[145] *2019 Hearing*, *supra* note 32, at 138 (statement of Keith Yagaloff), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 109 (2019).

[146] Letter from Martin R. Fortin to the Conn. Gen. Assemb. J. Comm. on Judiciary (Mar. 23, 2018) [hereinafter Fortin letter], https://cga.ct.gov/2018/juddata/TMY/2018SB-00518-R000323-Fortin,%20Martin%20R.-TMY.pdf.

[147] *Id.*

[148] *Id.*

[149] *Id.*

[150] *Id.*; *see Testimony for Bill Number SB-00518 in All Committees*, CONN. GEN. ASSEMB., https://cga.ct.gov/aspx/CGADisplayTestimonies/CGADisplayTestimony.aspx?bill=SB-00518&doc_year=2018 (last visited May 21, 2023), (listing the public hearing testimony of at least twenty-five homeowners, including the Cloughs and Tofolowskys).

[151] An Act Concerning Additional Assistance for Homeowners with Crumbling Concrete Foundations, S. 518, 2018 Gen. Assemb., Reg. Sess. (Conn. 2018).

[152] Judiciary Committee Vote Tally Sheet, S. 518, 2018 Gen. Assemb., Reg. Sess. (Conn. 2018), https://cga.ct.gov/2018/TS/s/pdf/2018SB-00518-R00JUD-CV73-TS.pdf.

[153] ALEX REGER, CONN. GEN. ASSEMB. OFF. OF LEGIS. RSCH., 2018-R-0294, INSURANCE COVERAGE FOR CRUMBLING CONCRETE FOUNDATIONS: A SUMMARY OF THE ISSUES 2–4 (2018), https://www.cga.ct.gov/2018/rpt/pdf/2018-R-0294.pdf.

covered for unforeseen risks of loss."[154] Connecticut lawmakers expressed similar concerns. Speaking before the Senate's Subcommittee on Consumer Protection, Product Safety, Insurance, and Data Security to address the issue of insurance fraud in America, Senator Richard Blumenthal of Connecticut said that rather than "alerting their customers about the risks once the insurer[s] became aware of them, [insurers] surreptitiously changed the policies" and failed to "adequately notif[y]" homeowners so they "could take steps to protect themselves either by rebuilding or taking construction precautions . . . or taking new policies that cover this problem."[155]

Insurers defended their decision to change policy language and assert that they did provide proper notice to policyholders.[156] A spokeswoman for Hanover Insurance Group, who "declined to be identified," explained three reasons insurers decided to limit the policy language.[157] First, the change would effectuate insurers' original intent.[158] The spokeswoman averred that "[t]he industry's intent always has been to insure homeowners for the abrupt and unexpected collapse of their homes rather than for a slow deterioration."[159] Second, the spokeswoman maintained that without the state's approval of policy modifications, Hanover and other companies "likely would have stopped writing policies in [Connecticut] or would have cut back substantially."[160] Third and finally, the spokeswoman contended that the language change ensured Hanover was consistent with its competitors.[161] Had Hanover insured homeowners for injuries that their competitors did not, they would have been at a distinct disadvantage. Furthermore, Insurance Commissioner Wade in 2017 said that the policies complied with the law and were not revised because of the foundation crisis.[162] Thus, the insurers' decision seems to have been driven primarily by concerns over cost and competition, as well as their claimed drive to give effect to the coverage insurers intended to provide in the first place, despite the seemingly plain language of the original policies. They maintained that they did not reduce coverage retroactively but rather adjusted coverage to the narrow level initially intended and at which they priced policies before

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[154] Letter from Patricia & Joseph Neafsey to the Conn. Gen. Assemb. J. Comm. on Judiciary (Mar. 25, 2018), https://cga.ct.gov/2018/juddata/TMY/2018SB-00518-R000326-Neafsey,%20Joe%20-%20Patrica-TMY.PDF.

[155] *Insurance Fraud in America: Current Issues Facing Industry and Consumers: Hearing Before the Subcomm. on Consumer Prot., Prod. Safety, Ins., & Data Sec. of the S. Comm. on Commerce, Sci., & Transp.*, 115th Cong. 35 (2017) [hereinafter *Insurance Fraud in America*] (statement of Sen. Richard Blumenthal).

[156] Bedner, *Crumbled Insurance*, *supra* note 124.

[157] *Id.*

[158] *Id.* (noting that Hanover's spokeswoman "declined to be identified.").

[159] *Id.*

[160] *Id.*

[161] *Id.*

[162] *See supra* note 142 and accompanying text; *Part 2: Who's to Blame for Crumbling Foundations?*, *supra* note 88.

Beach was decided and the court's unexpectedly broad definition of collapse expanded coverage.[163]

While it is difficult to ascertain precisely what notices were or were not sent to homeowners to announce policy changes, it has not been shown definitively that any insurer in the late 1990s and early 2000s failed to comply with Connecticut's notice laws, despite these claims to the contrary.[164] Furthermore, the records of the National Association of Insurance Commissioners confirm that some insurers certainly provided notice.[165] Merastar sent a notice to its policyholders in or before March 2008 explicitly discussing changes in coverage for collapses, while Liberty Mutual Insurance Group provided similar notice to its policyholders in May 2003.[166] In issuing changes, insurers must certify that policies comply with minimum standards of readability required by Connecticut General Statutes § 38a-299 and that each policy has been scored according to the state's reading ease test.[167] Homeowner Walter Zaldwy, for one, confirmed that his insurer provided notice in 2008, though he did not name his insurer.[168]

In response, Connecticut passed Public Act 17-198 in 2017 to clarify what notice insurers must provide when renewing policies with modified terms and conditions.[169] Connecticut General Statutes § 38a-323 now states: "If an insurer intends to renew any policy . . . *under terms or conditions less favorable to the insured than provided under the existing policy*, the insurer shall send a conditional renewal notice" "by registered or certified mail or by mail evidenced by a certificate of mailing, or deliver[] to the named insured, at the address shown in the policy, . . . at least sixty days' advance notice of its intention."[170] The statute further specifies that "[t]he conditional renewal notice shall clearly state or be accompanied by a statement clearly identifying any reduction in coverage limits, coverage provisions added or revised that reduce coverage or increases in deductibles, under the renewal

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[163] Bedner, *Crumbled Insurance*, *supra* note 124; Clough v. Allstate Ins. Co., 279 F. Supp. 3d 387, 393 (D. Conn. 2017).

[164] Colli, *Troubleshooters*, *supra* note 1.

[165] These records are available by searching the NAIC's System for Electronic Forms Filing. *SERFF Filing Access*, SERFF, https://filingaccess.serff.com/sfa/search/filingSearch.xhtml (last visited June 2, 2023).

[166] Homeowners 2000 Program Notice to Policyholders, Merastar Ins. Co., June 2000, at 7 (on file with author); Amendatory Endorsement, Liberty Mut. Ins. Grp., May 2003, at 1 (on file with author).

[167] Merastar certainly did generate such readability certificates during the early 2000s, as they filed a copy of one such certificate from 2004 in the SERFF database. *See* State of Connecticut Policy and Endorsement Certification Form as per Chapter 699a of the General Statutes (Readable Language), Merastar Ins. Co. (signed Dec. 23, 2004) (on file with author). Presumably other insurers issued such certificates as well in order to comply with § 38a-299. *See also* CONN. GEN. STAT. § 38a-299 (2023).

[168] Colli, *Troubleshooters*, *supra* note 1.

[169] An Act Concerning Captive Insurance Companies, Short-Term Care Insurance, Personal and Commercial Risk Insurance, Preferred Provider Networks, and Making Minor and Technical Changes to Certain Insurance-Related Statutes, Pub. Act. No. 17-198, 2017 Conn. Acts 931 (Reg. Sess.) (codified at CONN. GEN. STAT. § 38-323 (2023)).

[170] CONN. GEN. STAT. § 38a-323(a) (emphasis added).

policy."[171] Prior to this amendment in 2017, the statute specified protocols that insurers must follow when renewing a policy, but not the protocols for changing coverage.[172] Given that the Insurance Services Office amended its policy language in the mid-1990s and early 2000s,[173] it is likely that most insurers adopted this language and provided adequate notice, but that policyholders failed to heed these notices. It is less clear, however, why the state accepted these changes seemingly without question and continued to accept changes even as late as February 2016, in the midst of the state's investigation of the "crumbling concrete crisis."[174]

3. *Filling the (Insurance) Gaps*

Looking forward, regulating the insurance industry more extensively could prevent such a crisis from repeating itself. While such regulation may seem an unappealing prospect to some and a daunting task for those who would have to steward the drafting and passing of such regulation, such regulatory action may be more feasible in an insurance-connected state like Connecticut. This crisis has arisen in an interesting locale, given Connecticut's renown as the birthplace of the U.S. insurance industry.[175] The crisis is even regionally centered near Hartford, a city nicknamed "the Insurance Capital of the World."[176] This historical context and the resulting long-term relationship between state officials and insurers could motivate these actors to collaborate to find ways to preserve this relationship and rebut the negative pall this crisis has cast on insurance in the state.

First, the state could do more to ensure notice to policyholders when insurance language changes. This could be accomplished either by requiring insurers to provide more detailed notices or by mobilizing the Insurance Department to publish its own notices. The Insurance Department maintains a portal, publishes bulletins, and provides press releases and other alerts on its website,[177] but mailings to homeowners could perhaps prove timelier and more effective. Policyholders may not heed such notices, but such efforts could better publicize changes in coverage. The Insurance Department could

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[171] *Id.* § 38a-323(a)(2).

[172] CONN. GEN. STAT. §38a-323(a) (2012).

[173] Bedner, *Crumbled Insurance*, *supra* note 124.

[174] *Id.*

[175] Kevin Flood, *How Hartford Became the Insurance City*, HARTFORDHISTORY.NET, https://www.hartfordhistory.net/insurance_city.html (last visited May 20, 2023); Patrick J. Mahoney, *Aetna Helps Make Hartford "The Insurance Capital of the World*,*"* CONNECTICUTHISTORY.ORG (Mar. 27, 2022), https://connecticuthistory.org/aetna-helps-make-hartford-the-insurance-capital-of-the-world/.

[176] *Best Places for Business and Careers 2019: Hartford, CT*, FORBES (2019), https://www.forbes.com/places/ct/hartford/?sh=4576dcac306e.

[177] *State of Connecticut Insurance Department*, CT.GOV, https://portal.ct.gov/cid (last visited May 20, 2023).

also heighten the readability standard[178] or require insurers to offer a clearer understanding of exactly what they intend to cover on the front end, rather than offering a retroactive explanation when specific language is up for debate. However, analyzing such policies without the benefit of hindsight may be fruitless. Even had the Insurance Department initiated such an analysis prior to *Beach*, it may not have identified any ambiguity in the language.

Insurers could also better assist the state and their policyholders by utilizing the data they collect. Insurers collect massive amounts of data on policyholders—data that the state is often unable to collect. By collecting data on what types of claims are being filed and why, insurers could notify state insurance departments when they learn of burgeoning crises, like upticks in the pervasive and unanticipated crumbling of home foundations, to allow states to respond to such crises more quickly. Further, with greater collaboration across state departments and agencies, an early warning system could clue in offices like the Department of Consumer Protection to expensive and serious issues that do not seem remarkable based solely on the quantity of complaints the department receives, as the claims filed to the department regarding pyrrhotite initially seemed.[179]

Attorney Yagaloff addressed insurers' advantages in data collection before the state legislature in 2019. Yagaloff noted that insurers were already using "a company called . . . Insurance Services Organization . . . to gather data as far as how many claims were coming in for these . . . kinds of conditions[,] including the concrete conditions," in the early 2000s.[180] Had the state learned of and seriously investigated the pyrrhotite problem at this time, fewer foundations susceptible to sulfate attack may have been poured with fewer homeowners affected today and lower remediation costs for the state.[181] However, this would require private companies to disclose the obtained information to the government and the government to act on this information. While the companies could take steps to protect policyholder data and still provide useful information, this option is undercut by the state's apparent inaction on pyrrhotite, even with advance warning of the problem as early as 2008.[182] Thus while this strategy could benefit Connecticut when faced with future crises, it is only with legislative investment that this strategy would be successful—a recurring theme throughout this crisis.

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[178] CONN. GEN. STAT. § 38a-299 (2023); *see* Fortin letter, *supra* note 146 ("In most cases a home owner is no lawyer. The legalese in these contracts is difficult enough to understand without throwing in the time factor attributed to this insidious mineral disaster.").

[179] *See infra* Section III.A.

[180] *2019 Hearing*, *supra* note 32, at 138 (statement of Keith Yagaloff), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 109 (2019).

[181] *See infra* Section III.B.

[182] *2016 Hearing*, *supra* note 55, at 131–35 (statement of Don Childree), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 132–136 (2016); Lisa W. Foderaro & Kristin Hussey, *Financial Relief Eludes Connecticut Homeowners with Crumbling Foundations*, N.Y. TIMES (Nov. 14, 2016), https://www.nytimes.com/2016/11/15/nyregion/financial-relief-eludes-connecticut-homeowners-with-crumbling-foundations.html; *see infra* Section III.A.

Ultimately, the state created a captive insurance company—the Connecticut Foundation Solutions Indemnity Company (CFSIC)—to pay homeowners' claims.[183] While the state raised funds via the State Bond Commission and a surcharge on homeowners' insurance policies,[184] the state could take two additional routes to provide funding for such efforts when unanticipated crises like this arise. First, the state could implement a permanent tax to cover unanticipated claim denials. Such a tax could impose a lesser burden than the $12 annual surcharge the state ultimately imposed on homeowners[185] but would still generate funds to cover such costs. However, attuning a tax to an unforeseen crisis of unknown scope may be nearly impossible—the state would risk overtaxing its citizens or showing up empty-handed to the next crisis. Alternatively, the state could pursue aggressive insurance regulation. When the state finds insurers have failed to cover claims for which policyholders en masse reasonably expected coverage, the state could subsidize these costs but require insurers to supplement these costs. While insurers would argue that they did not price premiums to account for such costs, homeowners equally did not put money aside to cover unforeseen damage that they reasonably expected would be covered. Insurers are much better able to put aside such funds, and this program would incentivize insurers to provide more expansive coverage and settle more claims. Further, imposing this burden on all insurers would not put any specific insurer at a competitive disadvantage and would allow more grace when ambiguities in policy language arise.

Three insurers adopted a small-scale version of this approach of their own accord, supplementing the funds a homeowner can receive from CFSIC.[186] Liberty Mutual, Travelers, and The Hartford have begun a program to aid stricken homeowners with additional funding of up to $25,000 to supplement aid received from other sources.[187] Liberty Mutual has agreed to provide $7 million to aid homeowners, while Travelers has committed $5 million, and The Hartford has committed $3.5 million.[188] Perhaps more insurers will follow suit in light of Connecticut's ties to the

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[183] An Act Concerning the State Budget for the Biennium Ending June 30, 2019, Making Appropriations Therefor, Authorizing and Adjusting Bonds of the State and Implementing Provisions of the Budget, Pub. Act No. 17-2, § 336, 2017 Conn. Acts 2017, 2269–72 (Spec. Sess.) (codified as amended at CONN. GEN. STAT. § 38a-91vv (2023)); *see supra* Section III.B.

[184] Pub. Act No. 17-2, § 553, 2017 Conn. Acts at 2376 (authorizing the sale of bonds for $20 million per year for use by the Crumbling Foundations Assistance Fund); An Act Imposing a Surcharge on Certain Insurance Policies and Establishing the Healthy Homes Fund, Pub. Act No. 18-160, 2018 Conn. Acts 900 (Reg. Sess.) (creating the annual surcharge).

[185] Pub. Act No. 18-160, 2018 Conn. Acts at 900.

[186] Eric Bedner, *Insurers Offer Concrete Aid*, J. INQUIRER (Jan. 9, 2019), https://www.journalinquirer.com/article_674065c6-1428-11e9-a9a1-93c7bab5688e.html.

[187] *2019 Hearing*, *supra* note 32, at 11–12 (statement of Debra McCoy), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 40–41 (2019).

[188] *Insurers Agree to Help Cover Some Connecticut Crumbling Foundation Costs*, INS. J. (Jan. 10, 2019), https://www.insurancejournal.com/news/east/2019/01/10/514473.htm.

industry and the impact of the crisis on the public's perceptions of insurance. However, requiring more substantial contributions could prove the most flexible and sustainable option to provide more adequate relief to homeowners while saving insurance companies from an onslaught of unanticipated costs.

D. *National Responses, at Home and Abroad*

As homeowners pursued relief from J.J. Mottes and insurance companies, state officials beseeched the federal government for assistance as the scope of the crisis became clear.[189] However, the federal government ultimately only provided limited relief, and requests made to FEMA to provide federal assistance were unsuccessful. By contrast, governments of other nations have taken much more proactive, aggressive actions to remedy their respective regional foundation issues, some pertaining to pyrrhotite and other iron sulfides. Comparing the U.S. federal government's response to that of foreign governments has been a source of much frustration for Connecticut homeowners.[190] While these comparisons are in some ways inapposite and do not illustrate the nuances that shaped each nation's response, the point stands that some nations have taken better approaches than has the United States and have done more for affected homeowners, particularly as it pertains to regulation.[191]

Some efforts were quite successful in providing relief to homeowners in modest ways. Connecticut lawmakers sought relief from the IRS, which ultimately passed a revenue procedure allowing homeowners who had paid for foundation repairs to deduct the costs, but only from their 2017 tax returns.[192] Connecticut's U.S. senators also took on the issue, as evidenced by Senator Blumenthal's statements regarding U.S. insurance fraud,[193] and the efforts of both Senator Blumenthal and Senator Chris Murphy to secure

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[189] FEMA, *supra* note 8, at 2–3.

[190] *See* Ana Radelat, *FEMA Official Rebuffs Malloy Appeal on Crumbling Foundations*, CT MIRROR (Oct. 20, 2016, 6:43 PM), https://ctmirror.org/2016/10/20/fema-official-rebuffs-malloy-appeal-on-crumbling-foundations/.

[191] *See supra* note 42 and accompanying text; Brandão Capraro et al., *supra* note 37, at 7 (discussing the different international recommendations for contamination of concrete structures by sulfur compounds).

[192] Rev. Proc. 2017-60, 2017-50 I.R.B. 559 (2017) (providing "a safe harbor method that treats certain damage resulting from deteriorating concrete foundations as a casualty loss"); Rev. Proc. 2018-14, 2018-9 I.R.B. 378 (2018) ("extend[ing] the time under the safe harbor for an individual to pay to repair damage" to homes caused by pyrrhotite); *see* Kathleen McWilliams, *IRS Confirms Homeowners Can Deduct Foundation Repairs Made in 2017*, HARTFORD COURANT, https://www.courant.com/2018/01/11/irs-confirms-homeowners-can-deduct-foundation-repairs-made-in-2017/ (Dec. 6, 2018, 1:02 PM) (describing the efforts of Congressmen Joe Courtney and John Larson to secure the IRS relief).

[193] *Insurance Fraud in America*, *supra* note 155.

a grant for the University of Connecticut to conduct research on the foundations crisis.[194] However, other efforts were less successful.

In 2016, state officials sought coverage from FEMA under the Stafford Act to receive federal emergency or disaster relief funding.[195] This request was denied, precluding the state from receiving federal funds to cover the costs of repair, and to date the federal government has not provided comprehensive relief to Connecticut homeowners.[196] FEMA's denial, compared with the response of some foreign governments, has drawn much criticism locally, but whether such criticism is warranted deserves greater attention.

Governor Malloy sought coverage multiple times in 2016 for the crisis under the Stafford Act, which provides federal financial assistance for both emergency declarations and major disaster declarations.[197] The Act defines an "emergency" as

> any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.[198]

Meanwhile, "'[m]ajor disaster' means any natural catastrophe," including floods, tornadoes, tidal waves, and so on.[199] FEMA found that the issue did not qualify for federal assistance under the Act's definitions, with a FEMA spokesperson noting that "[t]he crumbling foundation conditions experienced by individuals do[] not appear to constitute an emergency or major disaster," but instead "appear[] to be a consumer product or construction safety issue, something which FEMA has previously not treated as constituting an emergency or major disaster incident as contemplated by the Stafford Act."[200] A FEMA report later noted, however, that "[t]he Governor was told that even in the absence of a Presidential declaration, FEMA, along with other federal agencies, would be able to provide technical assistance for this incident."[201] Such assistance included the appointment of

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[194] Press Release, Sen. Chris Murphy, *Murphy, Blumenthal Applaud $768,000 Federal Grant for UConn Crumbling Foundations Research* (Aug. 26, 2020), https://www.murphy.senate.gov/newsroom/press-releases/murphy-blumenthal-applaud-768000-federal-grant-for-uconn-crumbling-foundations-research.

[195] Radelat, *supra* note 190.

[196] *Id.*

[197] *Id.* (noting that Governor Malloy sought relief from FEMA first in April 2016 and again in October 2016); *How a Disaster Gets Declared*, FEMA, https://www.fema.gov/disaster/how-declared (Apr. 25, 2023).

[198] 42 U.S.C. § 5122(1).

[199] *Id.* § 5122(2).

[200] Radelat, *supra* note 190.

[201] FEMA, *supra* note 8, at 2.

a Senior Federal Liaison to help Connecticut officials engage with other federal agencies.[202]

In an editorial for the Hartford Courant, Professor Robert M. Thorson of the University of Connecticut's College of Liberal Arts and Sciences challenged FEMA's response.[203] Arguing that FEMA should provide coverage, he wrote that the crisis both "meets the working definition of a geological hazard as used by the U.S. Geological Survey, the lead federal agency on this topic"[204] and "appears to be covered by [FEMA's] mission statement" which aims to "improve" the nation's ability to "protect against, respond to, recover from and mitigate *all hazards*."[205] He further argued that FEMA's definition of an emergency as "'any occasion or instance' that the president says is an emergency . . . is a bogus, non-definition."[206] Most importantly, Thorson also questioned the Stafford Act's definition of a "major disaster" as any "natural catastrophe" and challenged the agency's finding that this crisis would not qualify.[207] Legislators have addressed the crisis in such terms,[208] deeming the issue a "horrible natural disaster," for example, and also have raised their concerns about the limitations of the language of the Stafford Act.[209] State Senator Saud Anwar directly addressed

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[202] *Id.* at 3.

[203] Robert M. Thorson, Editorial, *Robert Thorson: Crumbling Foundations a Natural Disaster*, HARTFORD COURANT, https://www.courant.com/2017/06/07/robert-thorson-crumbling-foundations-a-natural-disaster/ (Dec. 12, 2018, 2:23 PM).

[204] *Id.*; *see Landslides Glossary*, U.S. GEOLOGICAL SURV. https://www.usgs.gov/glossary/landslides-glossary (last visited May 21, 2023) (defining a geological hazard as "a geological condition, either natural or man-made, that poses a potential danger to life and property" and including "foundation and footing failures" among examples).

[205] Thorson, *supra* note 203 (emphasis added). In full, FEMA's mission "is to support our citizens and first responders to ensure that as a nation we work together to build, sustain and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards." FEMA, THE FEDERAL EMERGENCY MANAGEMENT AGENCY PUBLICATION 1, at 17 (2010), https://www.fema.gov/sites/default/files/2020-03/publication-one_english_2010.pdf.

[206] Thorson, *supra* note 203.

[207] *Id.* In so arguing, Thorson addresses FEMA's distinction between manmade and non-manmade disasters and argues that this distinction is no longer helpful nor logical:

> Alas, even this natural vs. man-made argument is fallacious. For meteorological, hydrological, geological and biological processes acting at or near the earth's surface, the distinction between natural and man-made contexts has become meaningless.
>
> Someone whose foundation is caving in should let FEMA know that we now live in the Anthropocene epoch, within which human and non-human agencies are hopelessly entangled.

Id.

[208] *See, e.g.*, 64 CONN. GEN. ASSEMB. H. PROC. 7445 (2021) (statement of Rep. Tammy Nuccio), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 21-120, at 26 (2021) (stating that extending the deadline of Connecticut Foundation Solutions Indemnity Company, the captive insurance company Connecticut created to address the crisis, "is vital to making sure that we recognize this natural disaster").

[209] 64 CONN. GEN. ASSEMB. S. PROC. 4121 (2021) (statement of Sen. Tony Hwang), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 21-120, at 47 (2021); *2019 Hearing*, *supra* note 32, at

this dichotomy, stating that "if . . . there was a hurricane and . . . 3,000, 5,000, 10,000 homes . . . were impacted, it would be a national emergency. . . . This disaster is no different except it's a slow-going disaster."[210]

The issue boils down to whether the Stafford Act should sanction, and FEMA should administer, relief for crises like these. The agency is acting in accordance with precedent in this case—it did not step in "to come to Florida's aid when Chinese drywall installed in more than 20,000 homes caused nosebleeds, headaches and asthma" in 2010, for example.[211] Whether FEMA can and should do more could be the subject of much more debate, and responses would likely vary according to political inclinations. Still, at least locally, the failure of the U.S. federal government to take action has frustrated affected Connecticut homeowners all the more given the steps other countries have taken to address crises regarding crumbling foundations. However, while other governments have acted seemingly more readily, the nuanced situations in each of these countries made national action more feasible.

Ireland has faced two similar construction crises.[212] The first, centered in northern County Donegal, concerned the presence of muscovite mica.[213] When concrete aggregate contains high levels of muscovite mica, "cracking patterns" can appear,[214] jeopardizing the structural integrity of the homes. Residents even reported that "[c]hunks of houses" had "fall[en] off" because of the mica's deleterious effects.[215] An expert panel convened by the Irish Minister of Housing and Urban Renewal to report on the crisis noted that these "external wall cracks first became public knowledge in 2013."[216] Simultaneously, the panel reported on another ongoing crisis—County Mayo had similarly been plagued by pyrite, which also came to light around

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22–23 (statement of Sen. Saud Anwar), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 51–52 (2019).

[210] *2019 Hearing*, *supra* note 32, at 22–23 (statement of Sen. Saud Anwar), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 51–52 (2019).

[211] *Part 2: Who's to Blame for Crumbling Foundations?*, *supra* note 88; *FEMA Denies Aid for Florida Families with Chinese Drywall Damage*, INS. J. (Mar. 17, 2010), https://www.insurancejournal.com/news/southeast/2010/03/17/108217.htm.

[212] Lumsden, *How Ireland Protects Homeowners*, *supra* note 51 (addressing Ireland's pyrrhotite crisis); Carolyn Lumsden, *How Two Women Got Ireland to Fix Crumbling Homes*, HARTFORD COURANT (June 9, 2019, 5:59 AM) [hereinafter Lumsden, *How Two Women*], https://www.courant.com/2019/06/09/how-two-women-got-ireland-to-fix-crumbling-homes/ (addressing Ireland's muscovite crisis).

[213] Lumsden, *How Two Women*, *supra* note 212; DENIS MCCARTHY ET AL., REPORT OF THE EXPERT PANEL ON CONCRETE BLOCKS 4 (2017), https://www.gov.ie/en/publication/0218f-report-of-the-expert-panel-on-concrete-blocks/?referrer=http://www.housing.gov.ie/sites/default/files/publications/files/report_of_the_ expert_panel_on_concrete_blocks.pdf.

[214] MCCARTHY ET AL., *supra* note 213, at 37.

[215] Lumsden, *How Two Women*, *supra* note 212.

[216] MCCARTHY ET AL., *supra* note 213, at 4.

2013[217] but was identified as early as 2007.[218] Ultimately, spurred on by homeowners who campaigned for government aid, the Irish government "pledged to pay 90 percent of the cost of repairing homes" affected by muscovite mica[219] and is also reportedly "spending $79 million to fix more than 1,600" homes damaged by pyrite.[220]

Canada also faced its own battle with pyrrhotite.[221] Homeowners in Trois-Rivieres, Quebec, began to notice cracks in basement walls in the early 2000s.[222] Many of the homes afflicted were covered "through five-year warranties on new homes," which covered the costs of repair.[223] Other homeowners received funds after already initiating litigation against "all the actors likely to share responsibility for the problem," including "construction companies, engineering firms and architectural firms" and reaching out-of-court settlements.[224] Thereafter, these efforts were also supplemented by aid from the national and regional governments with grants providing "up to $75,000 per home."[225] By 2019, the 2,000 affected families had "gotten help paying for new foundations, and companies have been held to account for allowing pyrrhotite in concrete."[226]

Meanwhile, in Connecticut, as the prior discussions of the torts and insurance systems have evidenced, supplemental sources of funding have proven less readily available.[227] Yet while homeowners have looked to these foreign examples of national government intervention and lamented the relative federal inaction in the United States, this comparison ultimately lacks nuance. One factor in particular distinguishes the actions abroad from the situation at home: the costs of repair abroad have been lower. In Ireland, for example, homeowners' challenges with pyrite were less costly, as only the fill beneath homes required repair, rather than entire foundations.[228] In

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[217] *Id.* Just like pyrrhotite, pyrite is an iron sulfide. Lumsden, *How Ireland Protects Homeowners*, *supra* note 51.

[218] Cathal Mullaney, *"We're No Different to Anyone Else Affected by It, We Didn't Cause It, We Can't Cure It, So We Need Help." Sligo's Growing Pyrite Disaster*, IRISH INDEP. (May 8, 2021, 12:00 AM), https://www.independent.ie/regionals/sligochampion/news/were-no-different-to-anyone-else-affected-by-it-we-didnt-cause-it-we-cant-cure-it-so-we-need-help-sligos-growing-pyrite-disaster-40382736.html.

[219] Lumsden, *How Two Women*, *supra* note 212.

[220] Lumsden, *How Ireland Protects Homeowners*, *supra* note 51.

[221] *Editorial: Lessons from Canada on the Pyrrhotite Plague*, *supra* note 27.

[222] *Id.*

[223] *Id.*

[224] ASSOCIATION DES CONSOMMATEURS POUR LA QUALITÉ DANS LA CONSTRUCTION, ANALYSIS OF STRATEGIES USED BY CONSUMER GROUPS IN THE CONSTRUCTION SECTOR: FINAL REPORT OF THE. RESEARCH PROJECT PRESENTED TO INDUSTRY CANADA'S OFFICE OF CONSUMER AFFAIRS 25 (2014), https://www.acqc.ca/sites/default/files/pdf/rapport-final-groupes-en.pdf; *see also Editorial: Lessons from Canada on the Pyrrhotite Plague*, *supra* note 27.

[225] *Editorial: Lessons from Canada on the Pyrrhotite Plague*, *supra* note 27.

[226] *Id.*

[227] *See* discussion *supra* Sections II.B–C.

[228] Lumsden, *How Ireland Protects Homeowners*, *supra* note 51.

2019, the average cost of repair in Ireland was $79,000,[229] while the average cost of repair in Canada was about $72,000.[230] In Connecticut, estimates from 2018 and 2019 of the average cost of repair have ranged from $130,000 to upward of $200,000.[231] While Connecticut homeowners therefore have greater need for assistance, providing such assistance would also more greatly burden the federal government.

As mentioned, another factor distinguishing Ireland and Canada from the United States—and Connecticut, as well—is that these foreign governments earlier imposed strict standards regarding the use of rock and aggregate containing iron sulfides.[232] It is this factor that deserves the most attention and for which both the United States and Connecticut could face critique. Part III argues that Connecticut would benefit from stricter regulation of its quarries, concrete manufacturers, and the like to prevent crises like this, and it has no excuse for not further regulating these actors.

III. BREAKING POINT? AN ASSESSMENT OF THE STATE'S RESPONSE

While the state learned about the crumbling foundations crisis as early as 2008,[233] Connecticut's legislative response to the problem began in full force in 2016.[234] Through 2021, legislators proposed over seventy bills and passed seven Public Acts to address this crisis.[235] These Acts have taken both a remedial and a preventative approach. Among the provisions thus far, the legislature has (1) allocated funds for foundation replacements;[236]

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[229] *Id.*

[230] This figure was calculated by taking the stated cost of $80,000 in Canadian dollars in 2009, adjusting for inflation to 2019 numbers ($95,522), and then coverting to U.S. dollars using the average 2019 exchange rate of 0.7537. Editorial, *Fixing Crumbling Foundations: More Lessons from Canada*, HARTFORD COURANT (Jan. 20, 2019, 6:00 AM), https://www.courant.com/2019/01/20/fixing-crumbling-foundations-more-lessons-from-canada/ (noting, as well, that costs have risen since 2009 in Canada because of price gouging); Inflation Calculator, BANK OF CANADA, https://www.bankofcanada.ca/rates/related/inflation-calculator/ (last visited May 21, 2023); *Currency Converter*, BANK OF CANADA, https://www.bankofcanada.ca/rates/exchange/currency-converter/ (last visited May 21, 2023).

[231] *Help Is Coming*, *supra* note 32; *2019 Hearing*, *supra* note 32, at 122 (statement of Michael Maglaras), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 93 (2019).

[232] *Why Not Here?*, *supra* note 51; Lumsden, *How Ireland Protects Homeowners*, *supra* note 51.

[233] *2016 Hearing*, *supra* note 55, at 131–35 (statement of Don Childree), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 132–136 (2016).

[234] An Act Concerning Concrete Foundations, Pub. Act No. 16-45, 2016 Conn. Acts 363, 363 (Reg. Sess.).

[235] A full list of the seventy proposed bills related to the foundations crisis introduced between 2016 and 2021 is on file with the author. The seven enacted Acts are: Pub. Act No. 16-45, 2016 Conn. Acts 363 (Reg. Sess.); Pub. Act No. 17-2, 2017 Conn. Acts 2017 (Spec. Sess.); Pub. Act No. 18-160, 2018 Conn. Acts 900 (Reg. Sess.); Pub. Act No. 18-179, 2018 Conn. Acts 1250 (Reg. Sess.); Pub. Act No. 19-117, 2019 Conn. Acts 478 (Reg. Sess.); Pub. Act No. 19-192, 2019 Conn. Acts 1356 (Reg. Sess.); Pub. Act No. 21-120, 2021 Conn. Acts 1085 (Reg. Sess.).

[236] An Act Imposing a Surcharge on Certain Insurance Policies and Establishing the Healthy Homes Fund, Pub. Act No. 18-160, 2018 Conn. Acts 900 (Reg. Sess.); *see* ALEX REGER, CONN. GEN. ASSEMB. OFF. OF LEGIS. RSCH., 2018-R-0123, ISSUE BRIEF: SELECT STATE ACTIONS ON CRUMBLING CONCRETE FOUNDATIONS (2018), https://www.cga.ct.gov/2018/rpt/pdf/2018-R-0123.pdf.

(2) offered tax breaks;[237] and (3) waived "certain building permit fees for repairing or replacing crumbling foundations."[238] Simultaneously, these measures have also (1) required those "building residential and commercial buildings to document the name of the concrete supplier and installer;"[239] (2) prohibited the use of "recycled material containing pyrrhotite to produce structural concrete for residential or commercial construction;"[240] and (3) created "a working group to develop a model quality control plan for quarries and to study the workforce of contractors engaged in the repair and replacement of concrete foundations" affected by pyrrhotite.[241] Yet while this approach seems comprehensive, greater analysis of the legislature's efficiency and efficacy since 2016 is warranted.

A. *2008–2016: Delayed Reaction*

According to some, Connecticut's officials knew of this problem as early as 2008, eight years before the state's lawmakers took legislative action.[242] Don Childree, a contractor in Connecticut and owner of Don Childree General Contractors in South Windsor, Connecticut, said he has personally replaced foundations deteriorating due to pyrrhotite since as early as 2003.[243] Childree reported to the Joint Committee on Planning and Development in 2016 that he started noticing the problem fifteen to twenty years prior—between 1996 and 2001, years before *Tofolowsky* was decided in 2003.[244] Childree took steps to bring the problem to light and even filmed a segment for Fox News, though he told the Committee in 2016 that the story "never ran, for some reason."[245] Childree's stifled efforts led him to conclude that "this problem's been covered up. . . . [T]here's obviously people in higher places that do not want this story to be told."[246] Regardless of whether Childree's assertion of a cover-up is true, it is apparent that the state was at least aware of the problem by 2008, when Childree urged an affected homeowner to report the problem to the Department of Consumer

[237] An Act Concerning the State Budget for the Biennium Ending June 30, 2021, and Making Appropriations Therefor, and Provisions Related to Revenue and Other Items to Implement the State Budget, Pub. Act No. 19-117, § 332, 2019 Conn. Acts 478, 781–85 (Reg. Sess.) (codified at CONN. GEN. STAT. § 12-701(a)(20)(B)(xxiii) (2019)); *see* REGER, *supra* note 236.

[238] REGER, *supra* note 236; Pub. Act No. 17-2, § 339, 2017 Conn. Acts 2017, 2274 (Spec. Sess.) (codified at CONN. GEN. STAT. § 29-263 (2017)).

[239] REGER, *supra* note 236; Pub. Act No. 16-45, § 1, 2016 Conn. Acts at 363.

[240] REGER, *supra* note 236; Pub. Act No. 17-2, § 338, 2017 Conn. Acts at 2273.

[241] Pub. Act No. 17-2, § 345(a), 2017 Conn. Acts 2017, 2280 (Spec. Sess.).

[242] *2016 Hearing*, *supra* note 55, at 131–35 (statement of Don Childree), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 132–136 (2016).

[243] *Id.* at 131, 133, 343.

[244] *Id.* at 133, 135; Tofolowsky v. Bilow, 34 Conn. L. Rptr. 322 (Super. Ct. 2003).

[245] *2016 Hearing*, *supra* note 55, at 343 (statement of Don Childree), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 209 (2016).

[246] *Id.* at 133.

Protection, which sent an investigator.[247] Childree said this effort ultimately failed as well:

> After meeting the homeowners, the investigator said that they would issue bulletins to home inspectors, realtors, [etc.] to stop these homes from being sold to unsuspecting consumers. . . . [N]o notices were sent out to the inspectors or realtors and the investigation now never existed. So new buyers have been purchasing homes since 2008 while Consumer Protection was well aware of this ongoing problem.[248]

The Department of Consumer Protection seemingly did not take further action, nor did the legislature or any other department, state agency, or government branch, until NBC Connecticut finally broke the story in 2015.[249] It is possible that state officials knew even earlier—*The New York Times* reported that "[h]omeowners began alerting state officials about their failing foundations as early as 2001."[250] Regardless of exactly when they first learned of the issue, it is clear that state officials did not pay serious attention when alarms began to sound.

In 2015, the Commissioner of the Department of Consumer Protection, Jonathan Harris, addressed the state's delayed response. Harris explained that "[the department] receive[s] thousands of complaints a year—over the last 10 years, probably 70,000 in total, and with this [pyrrhotite] issue, only a handful."[251] While channeling departmental resources to the most pressing problems is a prudent strategy, the consequences of measuring a pressing problem by the number of complaints received are clearly apparent here. A handful of complaints may not have amounted to much in the eyes of the department's decision makers, but the scope and consequences of these isolated complaints are great. The launch of a more comprehensive investigation could have provided homeowners with answers earlier, allowed the legislature more time to develop solutions, and prevented J.J. Mottes from pouring even more foundations. In 2015, a representative for J.J. Mottes reported that the company had produced over 10,000 projects—residential, commercial, municipal, and state—since 1998.[252] Assuming a steady work rate over these eighteen years, Connecticut's eight-year delay in addressing this crisis from 2008 to 2015 resulted in an average of 555 projects per year—or 4,400 projects over the entire eight years—poured with defective concrete. The state is now paying to repair these foundations and is imposing taxes, diverting resources, and exerting legislative energy and resources to do so.

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[247] *Id.* at 132–33, 343.

[248] *Id.* at 133.

[249] *Editorial: Lessons from Canada on the Pyrrhotite Plague*, *supra* note 27. For the original 2015 NBC Connecticut report, see Colli, *Troubleshooters*, *supra* note 1.

[250] Foderaro & Hussey, *supra* note 182.

[251] Colli, *Emails Reveal*, *supra* note 26.

[252] Colli, *Troubleshooters*, *supra* note 1.

B. *2016 Onward: The Legislature Takes Action*

In 2016, Connecticut passed Public Act 16-45, the first of seven laws it would enact that address the crisis.[253] The adequacy of these Acts must be measured both by their provisions and their implementation. These Acts have had serious benefits—providing significant relief to homeowners—but do not present a perfect solution, with lessons yet to be learned, even beyond the suggestions presented in Part II.

The benefits of this legislation are numerous. First and foremost, these Acts created a captive insurance company, the Connecticut Foundation Solutions Indemnity Company (CFSIC), which oversaw the repair of residential foundations and subsequently alleviated financial burdens for many homeowners.[254] The company issued 722 participation agreements for remediation and already remediated 400 homes as of October 21, 2021.[255] Thanks to additional funding secured with the passing of Public Act 21-120,[256] CFSIC can continue to provide relief to the claimants already in the system who have not yet received participation agreements and those who have yet to file claims.

The legislature also has taken a commendable long-term approach to the crisis, working to prevent future foundations from being poured without appropriate documentation and to protect homeowners from unknowingly purchasing a home with a defective foundation.[257] The state has also incentivized homeowners to take advantage of CFSIC by designing the company as a FOIA-exempt agency.[258] Through this effort, which has enjoyed largely bipartisan support, Connecticut's legislators have not only staved off financial and emotional devastation for many homeowners but have also ameliorated concerns that grand lists in the towns most affected

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[253] Pub. Act No. 16-45, 2016 Conn. Acts 363 (Reg. Sess.); *see also supra* note 235 (listing the seven laws).

[254] Pub. Act No. 17-2, § 336, 2017 Conn. Acts 2017, 2269–72 (Spec. Sess.) (codified as amended at CONN. GEN. STAT. § 38a-91vv (2023)) (tasking the captive insurer with "providing assistance to owners of residential buildings with" pyrrhotite-ridden foundations, "where such assistance ensures that any such foundation will be repaired or replaced and where such assistance is intended to provide any such owner with a structurally sound concrete foundation by arranging and approving a financial package that achieves full repair or replacement of such foundation with the lowest possible amount of borrowed funds").

[255] MICHAEL MAGLARAS, CONN. FOUND. SOLS. INDEM. CO., INC., OPERATIONS UPDATE: APPLICATION, PAID, AND INCURRED CLAIM ACTIVITY; PROJECTED FUNDING 3 (Oct. 21, 2021), https://crumblingfoundations.org/wp-content/uploads/2021/11/CFSIC_ClaimsFunding_Update_102121.pdf.

[256] An Act Concerning Crumbling Concrete Foundations, Pub. Act No. 21-120, § 3, 2021 Conn. Acts 1085, 1086 (Reg. Sess.) (removing the sunset provisions for the company).

[257] *See* REGER, *supra* note 236 (summarizing the legislature's actions regarding the crisis).

[258] An Act Concerning Crumbling Concrete Foundations, Pub. Act No. 19-192, § 14(b), 2019 Conn. Acts 1356, 1376 (Reg. Sess.); *see also* 59 CONN. GEN. ASSEMB. S. PROC. 2610 (2016) (statement of Sen. Cathy Osten), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 77 (2016) (explaining that the goal of the FOIA exemption is "to get more people to come forward on what is going on within their homes, . . . not [to] allow someone to sell a home and . . . not give the correct information to the new home owner").

would be negatively impacted, leading to longer-term economic consequences for the state as a whole.[259]

A final and important strength of this legislative scheme is that it remains flexible enough for the legislature to respond as the scope of the crisis unfolds. The legislature has built a model that can be extended to match the crisis as its severity becomes better understood over time. While the most wide-ranging projections put upward of 35,000 homes at risk,[260] the CFSIC has only received 1,876 applications from claimants.[261] CFSIC Superintendent Michael Maglaras wrote in the company's third Annual Report that as of September 29, 2021,

> [n]one of the data collected to date suggests that the crumbling foundations crisis currently or potentially affects as many as 35,000 homes in the 48 communities where CFSIC has applicants. Similarly, no data in CFSIC's possession provides evidence of a crisis on the magnitude of $1 billion to $2 billion, as has been widely reported. . . .We believe that this crisis involves most probably 3,000 to 5,000 homes in total, which will require remediation between [2021] and the end of 2030 . . . .[262]

Should the CFSIC indeed require funding until the end of 2030, as Maglaras predicted, the legislation can pass another bill like Public Act 21-120 to provide additional funding. Public Act 21-120 already extended the life of the CFSIC indefinitely, rather than allowing the company to dissolve on June 30, 2022,[263] demonstrating the legislature's willingness and ability to take effective interim steps to respond to the situation as it unfolds. If more and more homeowners come forward in time, the legislation can increase the fairly reasonable $12 surcharge on homeowner's policies[264] to provide additional funding or direct the Connecticut Housing Finance Authority to issue additional bonds to cover expenses. If, however, the crisis is not as drastic as estimated, the legislature can dissolve the CFSIC.[265] This flexible, patient approach has aided homeowners without imposing hefty surcharges on other homeowners to subsidize costs or implementing other resource-intensive measures before they are proven necessary. This solution

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[259] 59 CONN. GEN. ASSEMB. S. PROC. 2592 (2016) (statement of Sen. Tony Guglielmo), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 16-45, at 59 (2016) ("[E]ven [for those who are] not directly affected, [if] you live in a community, your grand list is gonna[] be affected. . . . [I]t's just a matter of time before it trickles down and involves everybody in the entire region and we're such a small state, if one region of the state's doing poorly, it'll affect all of us. It'll affect all of us.").

[260] CONN. STATE DEP'T OF HOUS., *supra* note 11.

[261] MAGLARAS, *supra* note 255255.

[262] Memorandum from Michael Maglaras, *supra* note 28, at 9.

[263] Pub. Act No. 21-120, § 3, 2021 Conn. Acts 1085, 1086 (Reg. Sess.).

[264] Pub. Act No. 18-160, 2018 Conn. Acts 900 (Reg. Sess.).

[265] CONN. GEN. STAT. § 38a-91vv(i) (2023) ("The captive insurance company shall continue until its existence is terminated by law.").

can provide a model for other legislatures to replicate and customize when responding to similar crises of an unknown scale that require subsidization but may not ultimately amount to a statewide problem.

That said, there remains room for improvement in any legislative scheme, and such is the case here. While there are always advocates for legislative action and those who disagree with the policies imposed, there remain areas where Connecticut's lawmakers could have responded more efficiently, competently, and strategically. Connecticut's lawmakers picked up the pace in 2016 and should be applauded for their measured response in building the captive insurance company, but the overall effort remained at times an unnecessarily slow process, particularly as it pertains to regulation. Even though Don Childree brought the issue to the state's attention in 2008 and again in 2016,[266] state lawmakers at times languished in analysis paralysis, particularly as it pertained to the development and implementation of appropriate regulations for quarries and concrete manufacturers.

Connecticut finally adopted statewide standards for pyrrhotite testing and quarry regulation in 2021, four years after Public Act 17-2 in 2017 mandated the creation of a working group "to develop a model quality control plan for quarries and to study the workforce of contractors engaged in the repair and replacement of concrete foundations that have deteriorated due to the presence of pyrrhotite."[267] The working group was due to "submit a report on its findings and recommendations" no later than December 31, 2018, but had not done so as of January 13, 2019.[268] Instead, Public Act 19-192, passed in 2019, apparently overrode the earlier deadline. The Act recreated the working group, echoing Public Act 17-2 word for word but requiring a report by February 1, 2020.[269] The report finally materialized on January 17, 2020,[270] and the group's recommendations have since been implemented in 2021 through the passage of Public Act 21-120,[271] effective July 1, 2021.[272]

The legislative history of Public Act 19-192 acknowledged these delays and duplicated efforts. As Representative Tim Ackert said, "unfortunately it's been known in this building that we sometimes get these working groups together but we actually gotta get together as soon as possible."[273] When asked whether interim standards would be appropriate

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[266] *See supra* notes 244–50 and accompanying text.

[267] Pub. Act No. 17-2, § 345(a), 2017 Conn. Acts 2017, 2280 (Spec. Sess.).

[268] *Id.* § 345(g), 2017 Conn. Acts at 2281; *Why Not Here?*, *supra* note 51.

[269] Pub. Act No. 19-192, § 15(g), 2019 Conn. Acts 1356, 1377 (Reg. Sess.).

[270] REPORT OF WORKING GROUP ESTABLISHED UNDER SECTION 15 OF PUBLIC ACT 19-192 (2020), https://www.cthousegop.com/ackert/wp-content/uploads/sites/3/2020/01/Report-of-Working-Group-Established-Under-Section-15-of-PA-19-192-FINAL.pdf.

[271] Pub. Act No. 21-120, 2021 Conn. Acts 1085 (Reg. Sess.).

[272] *Id.*; *Acts Effective July 1, 2021*, CONN. GEN. ASSEMB. https://www.cga.ct.gov/asp/aearchives/20210701ActsEffective.asp (last visited Jan. 20, 2023).

[273] *2019 Hearing*, *supra* note 32, at 65–66 (statement of Rep. Tim Ackert), *reprinted in* LEGISLATIVE HISTORY FOR CONNECTICUT ACT 19-192, at 64–65 (2019).

before the working group submitted its final report, Representative Ackert expressed concern about "unintended consequences," explaining that if the group were to make interim standards "too tight," the "next thing we know we can't pour any foundations because we've gotta buy concrete from out of the state or something."[274] However, given that Representative Ackert made these comments seven months after the United States Army Corps of Engineers had presented their final recommendations regarding appropriate quarry standards,[275] and nearly two months after a decision was due from the first incarnation of the working group, interim standards seem a more-than-reasonable step.

When tasked with meeting deadlines, Connecticut's legislators should be held accountable and act as efficiently as possible to prevent expensive, unwieldy problems from persisting. This has been a recurring problem throughout the state's efforts to respond to this crisis. Hasty legislation could result in the unanticipated consequences Representative Ackert fears, but that reality should not deter progress, particularly when other nations have implemented workable standards.[276] These foreign efforts model how to impose preliminary standards and adjust in light of new data.[277] Again, the state's failure to adopt this model affected not only those hoping to buy new homes poured with sound concrete but also those with defective foundations seeking relief through the torts system.[278]

Further, this crisis has the potential to recur in the United States beyond Connecticut. Other states, and perhaps the federal government, should have taken a similarly proactive and pragmatic approach. New York took steps to protect its foundations and construction efforts from sulfide attack by putting guidelines in place warning of the danger pyrrhotite poses as early as 2007,[279] while Pennsylvania "require[d] chemical analyses of minerals to detect dangerous sulfides" at least as early as 2019 and deploys its Department of Environmental Protection to "issue[] permits and regulate[] all mining in the state" rather than "leav[ing] quarry permitting largely up to strapped towns" as in Connecticut.[280] Such standards should be implemented across the country so states can avoid repeating Connecticut's mistakes.

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[274] *Id.* at 66–67.

[275] *See id.* at 66; *see also* Jill Konopka, *U.S. Army Corps of Engineers Release Findings on Crumbling Foundations*, NBC CONN. (Oct. 19, 2018, 6:55 PM), https://www.nbcconnecticut.com/news/local/us-army-corps-of-engineers-release-findings-on-crumbling-foundations/136818/.

[276] *Why Not Here?*, *supra* note 51; Lumsden, *How Ireland Protects Homeowners*, *supra* note 51; Hawkins, *supra* note 44, at 61.

[277] Hawkins, *supra* note 44, at 61.

[278] Jepsen letter, *supra* note 37, at 7.

[279] Lumsden, *How Ireland Protects Homeowners*, *supra* note 51; N.Y. ST. DEP'T OF TRANSP. MATERIALS BUREAU, MATERIALS METHOD 29, at 72–73 (2007), *available at* https://web.archive.org/web/20220119134710/https://www.dot.ny.gov/divisions/engineering/technical-services/materials-bureau-repository/mm29.pdf.

[280] *Why Not Here?*, *supra* note 51.

Connecticut finally mandated the statewide adoption of quarry regulations that limit the acceptable amount of pyrrhotite in concrete aggregate with the passage of Public Act 21-120.[281] But even then, these regulations did not go into effect until January 1, 2022, years after the hazards from pyrrhotite became clear.[282] These standards finally set specific allowable amounts of total sulfur content in aggregate samples, with only those aggregate samples evidencing less than one-tenth percent total sulfur by mass permitted for use, and even then, with only four years before additional testing is required.[283] Samples that have equal to or greater than one percent total sulfur content by mass are not permitted for use,[284] and those with amounts between one percent and one-tenth percent require further testing.[285] These regulations allow Connecticut to lay a strong foundation for a future free of pyrrhotite and all its expansive issues.

IV. LESSON LEARNED? AN ATTEMPT AT CONCRETE CONCLUSIONS

The state's legal systems and legislature provided relief to homeowners in various and discrete ways. The regulatory system and the torts system were largely unavailing, and insurers and the federal government provided scant relief to homeowners. The state legislature ultimately had to step in as the crisis grew and homeowners mobilized to such an extent that the crisis could not be ignored. Taking a measured approach, the state responded gradually, in some ways for the best, and in others leaving much to be desired, particularly in the realm of regulation. While these systems all provided relief to homeowners, each can be retooled as recommended to maximize relief more efficiently in the face of future crises.

As infrastructure ages, as the full effects of climate change become known, and as technology and construction techniques evolve, all likely resulting in more unexpected quandaries for Connecticut, the state must design legal systems that interconnect and work together, both to proactively anticipate these challenges and to respond to them efficiently and effectively. If Connecticut's legal systems heed the lessons of the pyrrhotite crisis, they will together provide a much stronger foundation for its citizens in the years to come. The legal avenues available to Connecticut's citizens can only effectively respond to future crises if they each provide the maximum level of relief, individually and when working in harmony.

Allowing citizens to access legal systems and remedies efficiently, easily, and equitably will be of the utmost importance over the next decades as the United States develops its response to climate change. In some cases, where an emergency requires immediate relief, the federal government will

[281] Pub. Act No. 21-120, § 9, 2021 Conn. Acts 1085, 1089–90 (Reg. Sess.).
[282] *Id.*
[283] *Id.* § 9(c), 2021 Conn. Acts at 1089.
[284] *Id.* § 9(d), 2021 Conn. Acts at 1090.
[285] *Id.* § 9(e)–(f), 2021 Conn. Acts at 1090.

have to step in. However, the burden that the federal government bears from national emergencies will only increase as the climate changes. In response, it will likely have to shore up its resources and provide aid selectively, only intervening when the worst crises threaten the most people.

The state governments will be required to address the rest. As we have already seen in Connecticut, the federal government cannot provide unlimited aid or assist the state governments on every issue. The states should start planning now and should learn how to differentiate between those that require urgent assistance and those that unfold gradually. Each state will have different issues. While pyrrhotite deteriorates because of water and air exposure, and thus flooding would speed up its deterioration, each state will face unique circumstances and challenges due to its own infrastructure, population, and climate risks. If the legal avenues are retooled and calibrated properly, states can respond to whatever circumstances and challenges arise.

To provide the best relief to citizens going forward, these avenues must be retooled now. The torts system can present undue barriers to claimants. While statutes of limitation serve their purpose, they should be flexible enough to allow valid, reasonable claims. Where other doctrines are at play, such as the useful safe life doctrine, they similarly must be able to provide relief. The purpose of the torts system is to hold a person accountable for harm done, allow those harmed a reasonable recovery, and disincentivize others from taking such harmful actions. If the balance between allowing relief and protecting from claims that are long past due weighs too heavily toward protecting tortfeasors from claims, citizens will suffer. Insurers, too, must strike a similar balance, keeping an eye on their solvency while providing relief to their policyholders and claimants. Climate change does not warrant a shift in this balance but an awareness that more people will likely face harm.

The federal government must provide the maximum relief when it can, but the states have to recognize the increased burden the federal government will face and accept that some challenges they will face alone. By accepting this reality, the states can start taking action now to preserve their citizens' futures. States may decide to set aside funds now in anticipation that unforeseen issues will arise, invest in technology and research to monitor its infrastructure, urge industries and regulatory bodies to develop appropriate standards more quickly, and work more efficiently when problems do arise to eliminate the barriers that provide relief. Hindsight will always illustrate what barriers have yet to be eliminated, so this final step is all the more important. Connecticut's experience with pyrrhotite is but one case study illustrating several such barriers. The states will have to rise to the occasion more often and more seriously in the coming years. By learning from past crises, the states will be better able to respond as it all unfolds.