HISTORY This Week EP. 102: The Great Boston Molasses Flood
EPISODE TRANSCRIPT

NOTE: This transcript may contain errors.

Sally Helm: January 15, 1919.

It's just after lunch time in Boston's North End. This busy section of the city takes up about a square mile. It's this crowded patchwork of commercial and residential blocks, right on the waterfront...Laborers, residents, commuters...horses, they're all just going about their business. And then…

[CRASH NOISE]

The Great Boston Molasses Flood is one of the strangest disasters in US history. But how could something so catastrophic ultimately have saved more lives than it cost? Maybe even your own?

Steve Puleo: Think of this flood as a wave that literally scoops up everything in its path and this one incredible disaster really changed history forever

Sally Helm: I'm Sally Helm and this is History: This Week. Today we go back to the Great Boston Molasses Flood of 1919.

Today, Boston's North End actually looks a lot like it did 100 years ago. There are these winding, one-lane streets. They feel really narrow, because they're walled on both sides by these long, rows of flat-faced, brick buildings. But the neighborhood didn't always look that way.

Before the 19th century, the streets were lined with single family homes...even private mansions. Paul Revere lived in one! But as Boston grew, so did the booming North End port. And Boston's upper crust relocated pretty quickly when the North End streets filled with sailors and tradesmen.

A few decades later, a wave of European immigration more than doubled the population of Boston. And many Irish, Jewish and Italian immigrants settled in the newly affordable North End. By the end of 1915, the North End's population had soared to 40,000 people living in about a square mile. It was *the* most densely populated neighborhood in Boston. It was one of the most densely populated neighborhoods in America.

And between the crowded residential streets and the docks, there stretched one of the city's biggest commercial hubs it was called Commercial Street. What else? The Public Works Division and Bay State Railway had big industrial office buildings there. Dozens of smaller shops and stalls also lined the main drag.

That is all to say that by lunchtime, on any given day, Commercial Street was not just busy. It was packed. And, towering over all the action, stood one of the North End's newest additions: a

50-foot-tall, 2-and-a-half *million*-gallon steel tank, filled right to the top with thick, syrupy molasses.

Now, why would anyone need to store the equivalent of three and a half Olympic swimming pools worth of molasses? Well, okay, sometimes molasses was used to make brown sugar or candy. But this particular molasses was destined to become booze. Rum, to be specific.

This tank we're talking about was operated the Purity Distilling Company, which was owned by USIA, United States Industrial Alcohol. During World War One, which had just ended, that company would have distilled the molasses into industrial alcohol to make bombs. These would be like a higher-tech version of a molotov cocktail, molasses becoming the alcohol that fuels the blast.

But now the war was over. Demand for bombs was way down. So, USIA shifted gears, they decided they would make that molasses into rum instead. But just as it seemed like they were back on safe, money-making ground..

Prohibition News Report: ***Reformers had a ball after WWI as they gleefully ushered in Prohibition. Whether it was the will of the people that voted in article 27 of the constitution was not necessarily clear. Anyway, there were a few who minored the restrictions and some others who had a field day smashing bottles. It must have been many a tear shed as these vintage wines hit the pavement.***

Sally Helm: Prohibition was set to go into effect in exactly one year. And after that: no more selling liquor. So USIA, was racing to produce and sell as much liquor as possible before that happened.

That is why on January 13th, USIA filled the Commercial Street tank right to the top, pumping in 2.3 *million* gallons of molasses. For two days the tank groaned and strained against this heavy, thick goop. And then, just after noon on the 15th…

[EXPOLSION]

We heard the story from Steve Puleo. He literally wrote the book on the Great Molasses Flood.

Steve Puleo: **It's called Dark Tide, The Great Boston Molasses Flood of 1919. When you first hear about the Boston Molasses Flood, I think it produces a little bit of a giggle, but it is really a terrible disaster. And on that day, just after noon time a Boston police patrolman by the name of Frank McManus was making his routine beat walk along Commercial Street when he hears what he describes as a tremendous rumbling, grinding sound and the rat tat tat of what sounds like machine gun bullets. And he turns around and he sees the tank literally disintegrating before his eyes. The rat tat tat are the thousands of rivets that hold together the steel plates of the tank, and he has the presence of mind to make one of the most unbelievable calls in history back to Boston police headquarters.**

He says, "Send all available rescue personnel immediately, there's a wave of molasses coming down Commercial Street."

Molasses leaves the tank at about 35 miles an hour. The wave starts at about 35 feet high levels off to 20 feet high and about 160 feet in diameter and quite literally scours the North End waterfront, picks up everything in its path. People, carts, horses, trains. About 80 feet from the tank was a firehouse and when the tank gave way the wave knocks the firehouse off of its foundation. The second-floor pancakes onto the first and several firefighters are trapped in an 18-inch crawl space trying their best to keep their heads above molasses.

Children are killed, workers are killed, city workers, immigrants are killed, horses are killed in the Great Boston Molasses Flood. And so, when you look at the devastation at the end of the flood, which probably in its entirety takes about 25 minutes, the entire North End waterfront is obliterated.

[AD BREAK]

Sally Helm: So, the blast was horrific and shocking and deadly, but it wasn't a total surprise. At least, not to the people who lived in the shadow of this giant, leaking, groaning tank. Kids in the neighborhood would collect molasses in pails as it pooled around the bottom of the tank. So, it was no secret that the construction was flawed, even if it wasn't clear just how flawed it was.

The problem was no one in power really cared.

Steve Puleo: In 1919, Boston's North End was almost exclusively Italian. There are 40,000 people who live in the North End. I'd say 98% of them are Italian, most of them are immigrants. Many of them do not speak English. Most of them are not citizens. So, they have very little to say in the way of political advocacy. They can't vote. They don't have much to say what happens in their own neighborhood.

So when United States industrial alcohol decides to site the tank right in the midst of this incredibly busy community and highly congested community, there is really no opposition on the part of the North End residents and even when the tank begins to leak, which it does almost from day one, long 50 foot leaks of molasses coming down the side, there is almost no official outrage at this and almost no neighborhood outrage at this.

Sally Helm: So, it's pretty clear that no one in power was paying attention to the North End community before the blast. That changed when the tank went down. Newspapers all over the country picked up the story of Boston's bizarre molasses flood. The next day, it was nation-wide news.

But the molasses stuck around a lot longer than the news story did. I mean, it was 2.3 million gallons of basically tar, filling basements, pooling in the street...gluing everything, and everyone, that it covered in place. Many of the people who died in the flood drowned well after the initial blast because rescuers couldn't get to them.

Steve Puleo: When the flood is finally over commercial street is in splinters. Buildings have been obliterated, rescue personnel are on the scene, frantic sailors have jumped off of ships in the harbor to help with the initial rescue. Firefighters are laying their ladders out doing their best to pull people out of this molasses. They're up to their thighs, for the most part in molasses, sometimes higher.

Sally Helm: Crews worked around the clock trying to locate the missing. All told, 21 people died and a hundred and fifty more were seriously injured.

Then came cleanup. Molasses doesn't exactly harden, it just congeals, so the crews couldn't break it up and cart it away. They worked for days, then weeks, trying to wash the streets clear with water from fire hydrants. But it wouldn't move the molasses. They tried using shovels and picks, even burning it away with gas torches. Nothing worked.

It seemed like the North End might just be sticky forever. But then, one firefighter had the idea to try salt water from the Boston Harbor. And that finally worked. Something about the salt content of that sea water cut the molasses just enough that crews were able to wash it away. But it wasn't just a matter of street sweeping because everything below street level was filled with molasses.

Steve Puleo: Keep in mind that every building across the street from the tank and near the tank had its cellars and its basements filled up to the first floor with molasses. So, this molasses that pours out of the tank gushes into the cellars and at first there's almost no idea on how to get rid of this molasses.

Sally Helm: A banana salesman had a shop directly across the street from the tank. He had stashed over four thousand dollars in his shop basement, and we wanted to get it back. He did, once the cleanup crews dug out a solid 12 feet of molasses and debris.

Overall, millions of gallons of ocean water were pumped into the city streets, then swept back out into the harbor, thick with molasses. It was reported that the harbor was brown for months afterwards. And years, even decades later the locals would say that on hot days, you could still smell it.

It took about six months for the North End to get back to normal. Buildings were re-built; the train line was repaired. But while Commercial Street was able to eventually get back to business, USIA, the company that had owned the tank, was in big trouble.

Steve Puleo: In reality, the cause of the tank's destruction was that the steel was too thin. The tank was built too fast and too shoddily by unskilled workers, which caused it to leak almost from day one. The company was warned that these leaks took place. The company was also warned by city workers that the tank would groan and shudder and shake every time there was a delivery of molasses.

Sally Helm: In 1920, 110 civil suits were filed against USIA. The cases were eventually consolidated into one big lawsuit between USIA and 119 plaintiffs, including the Boston

Elevated Railway Company, the City of Boston, and many, many individuals who had been hurt by the flood.

Now, the spill itself was of course a big deal but the case was maybe even bigger. This was the first significant class action against a major U.S. company. The Gulf Spill lawsuit, Enron, Erin Brokavich, this case paved the way for all of that.

The court's investigation took over 5 years. More than a thousand people testified, including experts in construction and physics. That set another huge precedent. This was one of the first cases that featured expert testimony as evidence.

Finally, in April 1925, a judge ruled that USIA's negligence had led to the structural failure of the tank. Ultimately, USIA paid out $628,000 to victims and their families. That's about $9 million today.

There was also another outcome. One that affects every single thing that is built in America today.

You might take it for granted that plumbers have to be certified, and engineers are held responsible for the structural integrity of what they build. But that just wasn't a thing before this case. Architects didn't even have to sign their drawings.

And *that* is exactly what changed.

The city of Boston started requiring that architects and engineers sign their building plans. This was the first time that the government was stepping in on construction in that way. And this simple act completely changed the dynamic between government and private businesses when it comes to building *anything* in America.

From there, a wave of building codes, regulations, and certification requirements swept the country.

Steve Puleo: I think the best way for us to understand it today is that almost everything we take for granted in the building construction industry, the fact that architects need to show their work, the fact that engineers need to sign and seal their plans, that building inspectors need to come out and look at projects before you can proceed, all of these things were made possible and made into law because of the Great Boston Molasses Flood of 1919.