**BEFORE THE OIL AND GAS CONSERVATION COMMISSION**

**OF THE STATE OF COLORADO**

IN THE MATTER OF CHANGES TO THE RULES ) CAUSE NO. 1R

OF PRACTICE AND PROCEDURE OF THE OIL & )

GAS CONSERVATION COMMISSION OF THE ) DOCKET NO. 191100692

STATE OF COLORADO )

) TYPE: RULEMAKING

**PRE-FILED WRITTEN TESTIMONY OF**

**ERIN MARTINEZ**

**NOVEMBER 12, 2019**

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**TESTIMONY OF ERIN MARTINEZ**

1. **INTRODUCTION AND BACKGROUND**

**Q. PLEASE STATE YOUR NAME AND ADDRESS.**

A. My name is Erin Martinez. I live at 8855 Peakview Avenue in Firestone, Colorado.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

A. I am not currently employed. Before I was injured in my home explosion in April 2017, I was a high school science teacher at Mountain Range High School. I taught high school chemistry and physics at Mountain Range for 10 years, and I taught science elsewhere for 7 years before that.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

A. I am testifying on my own behalf.

**Q. WHAT IS YOUR INTEREST IN THIS RULEMAKING?**

A. On April 17, 2017, my home was destroyed by a natural gas explosion caused by odorless methane leaking into my basement from an improperly abandoned flowline associated with a well 170 feet from my house, both of which were owned and operated by Anadarko Petroleum Corp. My husband, Mark Martinez, and my brother, Joey Irwin, were both killed in the explosion. I was critically injured, and my son suffered minor injuries. My interest in this rulemaking is to ensure that what happened to me and my family can never happen to another family. People need to know what oil and gas wells and pipelines are on, under, or adjacent to their property. They need to know that wells and flowlines are properly operated and maintained, that they are tested when reactivated, and that they are removed when they’re no longer needed.

**Q. PLEASE DESCRIBE THE CIRCUMSTANCES LEADING UP TO YOUR HOME EXPLOSION.**

A. We moved into our new home at 6312 Twilight Avenue in the Oak Meadows Subdivision in Firestone, Colorado in March 2015. On Friday, April 14, 2017, we started having trouble with our home’s water heater. When we got home that day, the water heater was overheating, shaking, hot to the touch, and had leaked water all over our basement. Instead of keeping water at a constant temperature, it was always on and was overheating. Because it was so late, we shut off the water heater and the gas line to it that night.

Because the water heater was only two years old, my husband Mark called the water heater manufacturer the next day (Saturday) to ask about the warranty. He learned that the warranty would only cover a new thermostat. When Mark moved the water heater, though, he saw that the tank was burned on one side. Even though the warranty would only cover a new thermostat, we decided as a family to replace the whole water heater. Mark installed the new water heater on Saturday.

Late on Sunday night, the same thing started happening – the water heater was running constantly instead of cycling through, and it kept overheating. It leaked water all over our basement again. Mark called the gas company, Black Hills Energy, to verify the amount of gas coming into the home. He also called my brother Joey, because he was a master plumber. Mark and Joey checked and confirmed the water pressure coming into the water heater, trying to identify the cause of the problem.

Joey suggested installing an expansion tank on the water heater, which is often done in commercial settings. Joey went to the plumbing supply house and talked with other master plumbers, and they supported installation of an expansion tank. Mark and Joey were in the basement talking about the expansion tank when the methane in the basement ignited and our home exploded.

**Q. PLEASE DESCRIBE WHAT HAPPENED ON THE AFTERNOON OF APRIL 17, 2017.**

A. I picked up my son from school when I got off work that afternoon, and we went home to our house on Twilight Avenue. I was in the basement running on our treadmill when my brother Joey arrived. Joey started laying out his tools in the basement, asking me if I’d make him dinner since he was there to help Mark with the water heater. A few minutes later, Mark got home, and he came downstairs. He and Joey were talking in the basement, and I went upstairs so that I could go get my daughter from school. When I got to the top of the stairs, I went to our back door to let our dogs in – they were going crazy and wanted to see Mark and Joey. When I opened the sliding glass door, I was thrown into the air and became trapped in debris. Our house was lifted off of its foundation and turned, and the top floor collapsed. I was pinned at the waist, and I could not move or get myself free.

My son was upstairs in his room, and the windows blew out in the explosion. He crawled out of his window and jumped out. Some men who were working on framing new apartments behind our house saw him running around our yard, yelling that we were still inside. He was trying to get back inside the house, and he told them where he thought I was in the house. They came up to the house and were fanning the fire away from me -- I wasn’t on fire yet. When they pulled on me, I was getting further crushed. They made the decision to go back over to their work site and get a forklift to try to free me. I remember seeing the forklift crashing through our back fence. As they used to forklift to move debris, they told me to slide down the piece that had me pinned.

They got me free and laid me out in the field behind my house. I remember seeing my son and my best friend Jenny there. There was also a woman, a nurse, who was at King Soopers and heard the explosion – she drove over to see if she could help. I was laying in the dirt, trying to figure out what we could do to help Mark and Joey.

The first responders arrived and must have given me a sedative. I was put in an ambulance and driven to the Flight for Life helicopter – there was too much smoke and heat for the helicopter to land near our house. My son was put in an ambulance and followed me to the same hospital.

No one was able to reach Mark and Joey that night because it was too hot and dangerous. They were pronounced dead the following morning, on April 18.

**Q. CAN YOU DESCRIBE YOUR INJURIES FROM THE HOME EXPLOSION?**

A. When I got to the hospital, I was burned on 40% of my body. I had a collapsed lung and a broken right collarbone. All of my ribs were broken, as were the majority of the vertebrae in my back. I tore all of the ligaments in both of my knees. I had lots of internal bleeding and received several blood transfusions. The Flight for Life operator apparently called the hospital while we were en route and told them I’d probably be dead on arrival. I’ve had 29 surgeries, with more to come. This tragedy almost had three fatalities. I’m lucky to be alive.

**Q. WHY DID YOU DECIDE TO BE A PARTY TO THIS RULEMAKING?**

A. I recognize that all of the other parties to this rulemaking are oil and gas companies, or local governments, or conservation groups, or citizen groups, or homebuilders, or whatever – and I’m just one person. I feel I have a responsibility to my husband, Mark, and my brother, Joey, to do everything I can to make sure that nothing like this can ever happen again. They died due to gross negligence on the part of an oil and gas company, and I don’t want their deaths to have been in vain. I think the COGCC’s rules need to be strengthened, and I thought the best way to do that is to participate as a party.

1. **PURPOSE OF TESTIMONY**

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. My testimony in this rulemaking hearing is to describe what happened to me and my family, and to identify ways that the COGCC’s rules can be amended so that no other family will ever go through what my family has endured.

**Q. DO YOU HAVE ANY EXHIBITS TO BE CONSIDERED WITH YOUR TESTIMONY?**

A. Yes, I have four exhibits that were attached to my Prehearing Statement. Exhibit 1 contains the changes I recommend that the Commission implement for existing COGCC Rules and the Proposed Rules published by the COGCC staff on October 8, 2019. Exhibit 2 is a briefing the COGCC provided to the Oak Meadows Homeowners Association on May 24, 2017. Exhibit 3 is a summary of the COGCC’s response to my home explosion and investigation into methane being released in and around the Oak Meadows subdivision from the improperly abandoned flowline associated with the Anadarko well behind my house. Exhibit 4 is a report COGCC prepared in 2014 assessing the risks associated with oil and gas development and prioritizing the phases of oil and gas operations that are most likely to cause problems for people or the environment.

**Q. WHAT IS THE PURPOSE OF THESE EXHIBITS?**

A. Exhibit 1 is to identify proposed changes to COGCC rule language to better protect public safety in the operation of oil and gas wells and flowlines. Exhibit 2 is provided to give Commissioners a sense of the history of the well at issue in my home explosion, the Coors V6-14Ji, and its improperly abandoned flowline, along with the development history of the Oak Meadows subdivision. Exhibit 3 is to detail the COGCC’s involvement in the investigation into the circumstances surrounding my home explosion, its soil-gas survey for methane in the neighborhood, its discovery of methane concentrations in the soil near the entrance to the subdivision along Oak Meadows Boulevard, and its remediation of the methane found in the soil. Exhibit 4 is to give Commissioners a sense of the COGCC’s historical assessment of the risks associated with flowlines – and in particular, the risks associated with their abandonment.

**III. SUMMARY OF TESTIMONY**

**Q. WOULD YOU SUMMARIZE THE MAIN POINTS OF YOUR TESTIMONY?**

I want the Commission to understand what happened to me and my family, so that it can adopt rules that ensure it can never happen again. I want the Commission’s rules to provide location information about flowlines and oil and gas wells on a map that truly informs people about facilities that may be on, under, or next to their property. I also want the rules to provide a regulatory program that mandates the proper oversight of the operation, reactivation, and abandonment of oil and gas wells. I want COGCC rules to require the removal of flowlines that are not longer in use.

**Q. WHAT DO YOU THINK ABOUT THE OGCC’S PROPOSED RULES?**

A. I think the proposed rules are a good start, but they need to be strengthened to better protect public safety in the operation, reactivation, and abandonment of oil and gas wells and flowlines.

**Q. PLEASE WALK THROUGH WHAT DO YOU THINK NEEDS TO BE CHANGED IN THE COGCC’S PROPOSED RULES AS TO FLOWLINE MAPPING?**

A. The Commission should require operators to submit detailed information about the location of both existing and new flowlines, and it should make that information available to the public at a map scale that is detailed enough that users can actually tell if infrastructure is on their property or land they are considering buying. Some parties to this rulemaking are urging the Commission to post flowline locations at 1:24,000, the same scale used by the Pipeline and Hazardous Materials Safety Administration. This scale allows the public to see the location of flowlines within 2,000 feet, which is totally inadequate to inform Colorado residents meaningfully regarding the proximity of oil and gas wells and flowlines to the places where they live, work, learn, and play. I urge the Commission to post flowline location information on a map at a 1:1,200 scale, where one inch on the map equals 100 feet. Such a scale would essentially operate as a screening tool, where users can decide if they want to get more-precise information about the existence and location of flowlines either by calling Colorado 811 or going into the Commission’s office.

I also feel that this information needs to be accurate so that the public can rely on it. I understand that operators will be able to provide precise location information for new flowlines, and I think that they should be required to provide reliable information on existing flowlines as well. As I have learned, much of the information on existing lines is anecdotal – companies say they can look at old records or aerial photos to get a sense of where those lines are. I think this is inadequate. We need to know the actual, physical location of these flowlines, not just the location shown on records. I urge the Commission to require the submittal of actual flowline location information, within a meter of accuracy. Only by doing so can the public be assured that the location information is not only detailed, but accurate. This is also important for local governments. If they have access to an accurate map of oil and gas infrastructure, they can use it to make more informed decisions about land uses, including development of subdivisions on land previously utilized for oil and gas development.

**Q: WHY DO YOU THINK THE PUBLIC NEEDS THIS INFORMATION.**

A. Individuals want and deserve to know what is on or beneath their property. For one reason or another, they may not want to live where oil and gas wells and flowlines are on or next to their property. For example, following my home explosion in April 2017, my children and I wanted to buy a home that did not have wells of flowlines beneath or next to it. This was especially important to my son – after losing his dad and his uncle due to oil and gas, he very much did not want any wells or pipelines near our new home. We looked at various homes, and once we decided on one that we liked, I wanted to determine whether the property contained any abandoned flowlines or other oil and gas infrastructure. I wanted to give my kids that sense of stability. I know there is a lot of development around Firestone, obviously, so I talked with the seller, I talked with the builder, and I talked with the Town of Firestone’s planning team. I was told that the nearest oil and gas facility was a well that had been plugged and abandoned in the 1990s about a mile away. I also consulted the COGCC’s online map, and it showed a plugged well where the Town thought it was. Based on those assurances, I bought the new home. A few months later, though, we saw Anadarko trucks in a nearby field. They were trying to identify the location of the abandoned well, because the developer was going to start on Phase II of the subdivision. And the Anadarko trucks just kept getting closer until they were digging right along my fenceline on my neighbor’s property. We did everything we could to investigate where oil and gas was, and it was right there on our property line. Even though they told me the well had been abandoned all flowlines had been disconnected, my son was really upset. He was worried that what happened before could happen again, and how can I tell him it won’t?

**Q. HOW DO YOU THINK THE COMMISSION’S RULES ON THE OPERATION AND OVERSIGHT OF FLOWLINES SHOULD BE CHANGED, AND WHY?**

A. A fundamental element of our home explosion was the fact that the well behind my house changed hands so many times. It was drilled by one company (Gerrity) in 1993, sold to another company (Patina) just a few years later, then sold to another company (Noble) in 2005, then sold to Anadarko in 2014. At some point, you would think that the company who owned the well would look at it and make sure it was operating properly – do the pipelines go where they were supposed to, are they connected properly, etc. I think the COGCC should require operators to do an integrity test every time they sell a well to another operator. This will ensure that records or institutional memory aren’t lost with the transfer. While an integrity test of the well behind my house and associated flowlines might not have revealed that the flowline was cut six feet from my foundation, it would at least have told both Noble and Anadarko that they should determine where the line went.

**Q. HOW DO YOU THINK THE COMMISSION’S RULES ON REACTIVATION OF WELLS AND FLOWLINES SHOULD BE CHANGED, AND WHY?**

A. I think the Commission should require a pressure test of an active or out-of-service flowline if it has been in active for more than 30 days. I understand that companies take lines out of service for many different reasons, sometimes for a long time and sometimes for only a short while. In the case of the well behind my house, it was shut in for nearly 2 years before being reactivated in January 2017. It was during that time that my home was built. Had it been pressure-tested before being put back into service, the severed flowline connected to the well would have been identified.

I also think the Commission should require operators to notify the surface owner, adjacent property owners, and the local government when wells and flowlines are reactivated after more than 30 days of inactivity. Had we gotten a notification in January 2017 that the well was reactivated, we might have contacted Anadarko or tested for methane in our basement when our water heater kept overheating. We had no reason to know that the water heater was overheating because it was continually burning the methane seeping into our basement.

**Q. WHAT DO YOU THINK SHOULD HAPPEN TO FLOWLINES THAT ARE NO LONGER NEEDED?**

A. I think that all flowlines should be removed from the ground when they are no longer needed, period. It was an abandoned flowline that was left in place that killed my husband and my brother, and that devastated my family.

I recognize that the Commission’s rules have changed since my home explosion, and that we know more now than we did before that about flowline endpoints and whether flowlines have been properly abandoned. I can see how those measures make another home explosion like mine less likely. I know industry says the chances of it happening again are “nil.” But I don’t believe that. Rules in place when the flowline behind my house was abandoned in 1999 required it to disconnected from all sources of natural gas, purged, and sealed at both ends. Yet it wasn’t. Amendments adopted by the Commission over the next 5 years required operators to cut off flowlines abandoned in place three feet below ground. Again, this didn’t happen with the flowline behind my house. The dangerous conditions on that flowline allowed to be abandoned in place were allowed to persist for nearly 20 years, during which the land was sold and my home was built and then destroyed.

I’m told there are over 120,000 pipeline segments within 1,000 feet of homes. When they are no longer needed, how many will be left in place under the exceptions in the Commission staff’s proposed rules? How many more will be left in place if the exceptions are expanded as industry and others are urging in this rulemaking? For those that are abandoned in place, how can we be sure they’re properly abandoned and safe? The rules require it, but what if companies don’t follow the rules? What if dangerous conditions continue for a number of years, and the property changes hands, and homes are built on the land? What happens when a home is built 170 feet from the well? What happens when the flowline is cut right next to the foundation?

I know industry will say that what happened to me “will never happen again.” But that’s not good enough. I don’t want rules that say it WILL NOT happen again, I want rules that ensure that it CANNOT happen again. The only way to guarantee that what caused my tragedy can never happen again is if all flowlines are removed when they’re no longer needed.

**Q. HOW WOULD YOU LIKE TO SEE THE COGCC’S RULES FOR PLUGGED AND ABANDONED WELLS CHANGED?**

A. To address the situation I encountered when we bought a new home in October 2017, I think that the Commission should require plugged and abandoned wells to be evaluated before a new home is constructed within 500 feet. This would include identifying any flowlines left in place and verification that they have been properly abandoned. I also would like to see the Commission obtain better information about the location of plugged and abandoned wells. Similar to the way in which the Commission required operators in the 2018 flowline rules to identify the end points of pre-existing flowlines, I think the Commission should require operators to make a one-time report of their best-available knowledge as to the existence and location of plugged and abandoned wells statewide.

Finally, I’d like to ensure that home developers are aware of the existence of any plugged and abandoned wells or abandoned-in-place flowlines in an area before homes are built. I’d like the Commission to invite local governments to notify the agency when land is rezoned to residential or before a subdivision plat is approved. The National Transportation Safety Board (NTSB) identified as a “probable cause” of my home explosion the fact that the Town of Firestone allowed homes to be built on land that had been used for oil and gas development, without “complete documentation from the operator, Anadarko Petroleum Corporation, on the location and status of its gathering system pipelines.”

**Q. IS THERE ANYTHING ELSE YOU’D LIKE TO SHARE WITH THE COMMISSIONERS?**

A. Yes. I sincerely appreciate the Commissioners’ consideration of the points I’m making in this rulemaking. Again, I’m just one person, so I appreciate everyone taking the time to listen to what I have to say. I was involved in the passage of SB19-181 for the same reason I’m involved here: to make sure that no other family will ever experience the tragedy my family has endured.

I also think it’s important that people know that I didn’t ask for this role. I’m not trying to destroy an industry, I’m not on a crusade against fracking, and I’m not doing this out of a desire for revenge or vengeance. I have a lot of family and friends who work in the oil and gas industry. I want it to be clear to everyone that I feel that companies can continue to drill, but they need to be held accountable for their actions. Drilling needs to be done safely in every instance, no exceptions, so that this doesn’t happen again. I also should note that I don’t just hold the oil and gas companies responsible. I recognize that changes need to be made in how municipalities make decisions about where and how development occurs. Again, I just want people to be secure in their homes, knowing that they can be safe.