UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:	*	
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MERRIMACK VALLEY RESIDENTIAL GAS	*	
FIRES AND EXPLOSIONS	*	Accident No.: PLD18MR003
SEPTEMBER 13, 2018	*	
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Interview of: MARK CHEPKE

Columbia Gas of Ohio
Gahanna, Ohio

Wednesday,
March 6, 2019

APPEARANCES:

MICHAEL HOEPF, Ph.D., Human Performance Investigator
National Transportation Safety Board

ANNE GARCIA, Human Performance Investigator
National Transportation Safety Board

ROGER EVANS, Investigator in Charge
National Transportation Safety Board

STEPHEN JENNER, Ph.D., Accident Investigator
National Transportation Safety Board

TOM TOBIN, Esq.
Wilson Elser Law Firm
(On behalf of Mr. Chepke)

I N D E X

I N T E R V I E W

DR. HOEPF: Okay. My name is Mike Hoepf. Today is March 6th, 2019, and we are at 1600 Eastgate Parkway, Gahanna, Ohio, interviewing Mark Chepke in connection with an accident that occurred at Merrimack Valley on September 13th, 2018.

The NTSB accident number is PLD18MR003. The purpose of the investigation is to increase safety, not to assign fault, blame, or liability. The NTSB cannot offer any guarantee of confidentiality or immunity from legal or certificate actions. A transcript or summary of the interview will go in the public docket.

The interviewee can have one representative of the interviewee's choice. Does everyone understand that this interview is being recorded?

MR. CHEPKE: Yes.

DR. HOEPF: Thank you. And, Mark, if you could please state your name and spell it, I'd appreciate it.

MR. CHEPKE: Yeah, it's Mark Chepke, M-A-R-K, C-H-E-P-K-E.

DR. HOEPF: Okay, and I am Mike Hoepf, H-O-E-P-F, with the NTSB.

MS. GARCIA: Anne Garcia, G-A-R-C-I-A, human performance investigator for the NTSB.

DR. JENNER: I'm Stephen Jenner, S-T-E-P-H-E-N, J-E-N-N-E-R, investigator with the NTSB.

MR. TOBIN: I'm Tom Tobin, T-O-B-I-N, and I'm an attorney

with the Wilson Elser Law Firm.

DR. HOEPF: Okay and --

MR. EVANS: Roger Evans.

DR. HOEPF: Oh, I'm sorry Roger.

MR. EVANS: Roger Evans with the NTSB.

MS. GARCIA: Could you repeat that, Roger, for the record?

MR. EVANS: Roger Evans, with the NTSB, R-O-G-E-R, E-V-A-N-S.

DR. HOEPF: Okay, thanks. And, Mr. Chepke, do you mind if we call you Mark?

MR. CHEPKE: That's fine, thank you.

DR. HOEPF: Okay, thank you.

INTERVIEW OF MARK CHEPKE

BY DR. HOEPF:

Q. And could you just start by telling us a little bit about yourself and your background?

A. Yeah, I've been with NiSource for a little under 34 years.

Q. Okay.

A. Began my career as a field engineer and progressed over that period of time through a number of different jobs into operations, gas operations, into construction, into the pipeline safety organization, and probably about 5 years ago into training, and I'm currently vice president of safety for the corporation.

Q. Okay, okay. And who reports to you?

A. Currently a number of safety coordinators that cover all seven of our state operations. That's been recent. That just

happened over the last month. Prior to that I ran -- I was vice president of training for 5 years, so I would have had all of the trainers across the footprint, and curriculum development people and anybody that supported training, but right now I have all of the safety professionals across the company that are working for me

Q. Okay. And who do you report to?

A. Dave Monte.

Q. Okay. And what safety training have you received?

A. Oh, it's been a long career so there's been a lot of training over the course of that period of time. Traditionally, back when I was in field operations, we had -- every 3 years we had emergency response training that we would attend as safety people, fire training back in operations.

Oh, my goodness, most of it in the last 10 years, the majority has been more leadership training because I've been in, obviously in the training organization itself. No, obviously participating in the development of a lot of training courses and as part of that, you know, sitting in training courses that way and helping to develop training courses. But these last 10 years a lot of it has been different types of leadership development and presentations around safety, AGA sponsored training that AGA does at their spring and fall conferences, been through a number of those and other outside entities as well.

Q. Okay. And what are your safety responsibilities?

A. Right now it's just to make sure that we're following the course that's set. Again, this is relatively new for me stepping into the safety role. The vice president of safety that was just retired recently, by the name of Dave Varwig, had built a number of safety programs that are currently in place and functioning.

So, again, for me it's to maintain those programs, safety meetings, safety strategies, the role out of those type things, the execution of the field work when it comes to safety, making sure the coordinators are doing what they need to be doing.

Q. Okay, okay. And so I understand, you know, it's sort of difficult with changing roles and things to kind of conceptualize -- you know, obviously we're here talking about high level topics generally but, you know, we're here as a result of an investigation --

A. Sure.

Q. -- that happened in September 2018, so maybe you could clarify what your role was at that time versus now?

A. Yeah. Yeah, I'm really here to really talk about the training program --

Q. Okay.

A. -- and I'm equipped to talk about the training program. Again, that's where I've spent the last 5 years.

Q. Right.

A. That's what I was involved in. At least at the time of the Merrimack Valley incident I was involved in training, so that's

what I'm really equipped to talk to you about.
Q. Okay, okay. And so you've been -- so training has been your primarily -- your primary job focus for the past 5 years. Where are you located? Have you -- sorry. Excuse me. Have you been located in Columbus, Ohio, for the last 5 years?
A. No. My home is in Pennsylvania just north of Pittsburgh.
Q. Okay, okay.
A. I have an office in Pittsburgh. I travel a good bit because I cover all seven of our operating companies when it comes to training.
Q. Okay.
A. And we've developed the training program that covers all seven of our operating companies.
Q. Okay, okay. So I'm looking at your business card and it just says vice president safety so I just -- I know I do this every time, but just to clarify -- we're talking about training today but is -- if we had a day of your week of 40 hours a week is -- pretty much is that 40 hours going to training or are there other safety responsibilities and other tasks and things that you're doing as the vice president of safety? I'm just trying to get an understanding of, you know what I mean, like --
A. Yeah, I think I do. So my business card up until a month ago would have said vice president of training.
Q. Okay.
A. That was there, and my role -- and, again, I'm more equipped

to talk about that and I certainly will talk about vice president of safety; I'm new to that role.

Q. Okay.

A. So very much right now sitting in meetings, listening, observing those types of things right now. As vice president of training my day would consist of a number of things: working on initiatives to build different training curriculum, working with the part of the organization that ran these training facilities -- we're sitting in one right now, Columbus, Ohio -- making sure that we're utilizing the training center properly.

Keep in mind I have a -- had a series of staff under me, a number of directors, had basically three directors reporting to me. One that was primarily focused on training curriculum development, so developing new programs, meeting with parts of the organization, determining what our needs were across the footprint of almost 83-, 8400 employees, seeing what their training needs were. The other two directors were split up; they were more about training execution. So they had the responsibilities to run any number of training facilities across the footprint and actually maintain the trainers themselves and the execution of that training delivery. One of those folks would cover a lot of the gas, Columbia companies, and the other one was primarily focused on our Indiana property, NIPSCO, which was gas, electric, power delivery, power generation. So, again, their day-to-day work in terms of whether it's dealing with the execution of training,

delivery of training, or creation of new training programs that were out there.

The other things that I would do on a daily basis are attend a number of meetings with our operating companies or our department heads and those types of things, to see what initiatives they had in play and how that might impact training in the future and which direction we wanted to take training as an organization to keep it updated and fresh.

Q. Okay, okay. So, and just to kind of set the tone for what we're going to talk for the core of the interview here. As the vice president of safety now, do you have any insight as far as what has -- you know, what the organization has done as a result of the incident that occurred in September? I mean, I don't necessarily expect that you're going to have knowledge of the specific events of the day, but what is your understanding in terms of organizational learning that maybe you've rolled into training programs or other aspects of your job?

Can you just talk about what the communication has been within the company, your knowledge, and again don't speculate or go outside your, you know, comfort zone, but just from your perspective what have you seen?

A. Yeah, let me go back to vice president of training --

Q. Okay.

A. -- and what's transpired over that period of time. The training staff themselves are working side by side with our

engineering group, our construction group, and our operations team on a number of initiatives coming out of Merrimack Valley. They are focused on our, from an engineering side, low -- the low pressure systems, low pressure regulators, slam shut regulators, different technology that we're looking to employ. They're participating in those meetings and starting to build that into our training programs for the future.

They're also starting to deliver courses. Right, very quickly after that incident there were a number of trainings that they've put in place to help, whether it's conveying brand new operational notices that were put in place or any potential procedural changes that were put in place. They're involved in both helping to develop that material and then to put on training when it requires instructor-led training, they would be involved in that as well.

And there's ongoing initiatives to talk about, you know, how it might -- anything there might impact our construction team and where they want to go in the future with training. So some are preliminary meetings. There were some immediate things that they put in place, but there's also some things that they're looking at as a training organization to talk about how do we build this into a long-term curriculum, any changes that have been made.

Other things that they're doing is our safety management systems that are beginning to roll out, they're working closely with that group to develop the training that's required for safety

management systems. Our training organization covers a lot of different job classifications from frontline employees to technical employees that have more technical jobs like a measurement technician or regulation technician, supervisors, call center employees. So any changes in procedures or changes in operating practices, it's their job to come alongside and make sure that that's integrated the right way into whatever that curriculum plan is for that particular employee group. So there's a lot of activity going on right now and will be for -- you know, that's an ongoing.

We have a fairly large internal curriculum development staff here at the company. It's made up of, oh, I want to say about 12 individuals that just -- on the gas side and then there's probably another 6 or so individuals on the electric side, power delivery side, so there's quite a few people focused on curriculum development within the company.

Q. Okay. So while we're on the topic of the incident and, again, it's sort of -- I know it's sort of a general level, but do you have any reason to believe that an insufficient amount of training had anything to do with the incident?

A. I don't have an indication of that, no.

Q. Okay.

A. Again, you know, from an engineering standpoint, and I will clarify this, our engineering organization had developed a training curriculum program a number of years ago within the

engineering group and it's a pretty comprehensive program that was developed. They created it themselves; they maintained it. The training organization really didn't do a lot with that program because it was kind of contained within the engineering organization.

On the construction side, employees are programed here in terms of training has historically been focused on field level employees or field level supervisors. The training organization does get involved in some of our dispatch type training at our dispatch center, but when it comes to other parts of the organization, we may support in a small way if they have a particular class that they want to sit in on, but we do not -- we did not and do not build their entire curriculum program. A lot of that is both through outside education, through universities, through engineer-to-engineer training, through outside courses that they attend. But there may be some courses that they might attend within our program, but from what I know of the incident I don't see where it potentially is a training issue. But, again, that's -- there's still more to be found out.

Q. Okay. So let's go ahead and talk about just at a general level then. Okay. So, and I think it's sort of interesting you said that you were a field engineer at some point or perhaps you started your career that way?

A. A long time ago.

Q. A long -- many, many years ago?

A. Many, many years ago.
Q. Okay. So I'd be kind of curious to hear your perspective. And mostly we're, you know, worried about the standards as far as, you know, 2018, leading up to the incident. But, you know, I'd be curious to hear your perspective to just over the years, you know, what are the training standards, minimum qualifications required to be a field engineer?
A. Yeah.
Q. And we'll just say, you know, and I'd be curious to -- and I keep qualifying these -- I'm sorry, but, you know, we'll just say Columbia Gas of Massachusetts to the extent that you can comment on, but also, of course, I understand NiSource is sort of in charge of different areas. So is it the same standard there versus everywhere else?
A. Yes. To my knowledge it's the same standard everywhere across the company. It's centrally -- it's been centrally managed for a number of years now and that group has worked very hard to maintain a level of consistency in the development of their training program. The engineer training program, as I know it, probably developed back in 2013, a pretty comprehensive training program. The people over that program are much more aware of it than I am, but they put a pretty strong structure in place in terms of making sure that you had a degree, an accredited engineer that comes to the company. They put in place a good solid onboarding program, kind of a career path and a tier progression

path for engineers, a mentoring path. They really laid out a pretty strong curriculum for those folks across the years that was put in place.

I know back in -- I think AGA in 2013 put out a paper dealing with engineer development and those types of things, and that's about the same time that our folks built their program and very strong parallels to what AGA was recommending in terms of covering, and they have a really solid, what I call progression program for those engineers, and over the years they've added to it and continue to add to it as various operations change.

I'll give you a perfect example of that is when we built these training centers, the one you're sitting in right now, that was an effort to move away from more of an OQ-only based training that was a lot of classroom instruction, to where our training today is about 70 percent activity based, hands-on oriented type training to go -- you know, more of an adult learning style, richer, deeper kind of learning strategy. That's not only benefited our field level employees but other's like supervisors and engineers to the opportunity that they've had to come in and sit in these classes. Some of the classes that our engineers would get to sit in are measurement and regulation type courses.

We had a fairly decent facility in the past, but if you were to take a look at what we've got now, it'll parallel almost any company in the country. Atlas down in Texas has a wonderful facility that we went down and looked at and sent a whole team

down there to look at their facility, and use that as somewhat of a model when we built ours. And while theirs is very good, I think ours is if not as good or a close second to what theirs is.

And where that benefits -- again, it benefits all of our folks, including engineers, because they get an opportunity to see things, touch things, work on things, and get a better mental understanding of that equipment. Even though they may not be the one to work on it, they really start to understand it a little bit deeper because of that ability put their hands on it under live flow conditions that we have here with air.

So, again, we've had a strong program. I think it's gotten stronger over the years and continues to get stronger as we find more and more opportunities for folks like that to get engaged in some of these hands-on activities out there in our facility.

Q. Okay. Thanks for the -- I appreciate that just -- you know, we like it when we can ask a simple question and get -- you know, not a simple question, but, you know, we like to have you talking, not us talking, so --

A. That's fine.

Q. So thanks for, you know, elaborating without, you know, incessant prompting.

So let me ask you about the leader of field engineer position. Can you tell me about the training that goes through for that?

MR. TOBIN: This is Tom Tobin. Pardon my interruption.

Tomorrow morning we're going to have the engineering vice president here who's going to -- he'll have all this for you. Please go ahead and answer.

DR. HOEPF: Yeah.

MR. TOBIN: But we've got a guy lined up to give you the--

DR. HOEPF: Oh, great. Okay, awesome.

MR. TOBIN: -- everything about it.

DR. HOEPF: Awesome, yeah. And I'm sure Tom will tell you too don't -- you know, anything that's not in your purview, your wheelhouse, just say --

MR. CHEPKE: Yeah.

DR. HOEPF: -- you know, talk to so-and-so, especially if we already have them on the schedule.

MR. CHEPKE: Right.

MR. TOBIN: Feel free to go on. Pardon my interruption.

MR. CHEPKE: Yeah. So this is Mark Chepke and, Tom, I appreciate you jumping in, but that is exactly what I was going to say.

DR. HOEPF: Okay.

MR. CHEPKE: Again, I'll go back to our engineering, organization engineering team has developed their own training program, curriculum development program. I'm not -- it's been a number of years since I was directly involved with engineering so I'm not as familiar with many of those people in that part of the organization; some but not many. So Kevin Swiger and others are

probably -- and I think you are going to be interviewing Kevin -- is a better person to speak to that.

DR. HOEPF: Okay, okay.

MR. CHEPKE: Yeah.

BY DR. HOEPF:

Q. So would it be a fair characterization that -- to say that the training that you're focused on is more PPE, you know, more people in direct contact with the system as opposed to system safety management review, that type of thing?

A. Yeah. So our group, our group, the training group that I was previously over up until a month ago, their primarily focus is field-oriented employees, so a number of different job classifications from people that maintain the facilities, to working on the facilities, to constructing the facilities, your field-oriented worker is primarily what we focused on.

I don't know if -- I think you interviewed Dave Monte. I don't know if he covered this, so if I'm getting too deep -- I started in this group back in 2000- -- late 2013 or early 2014. That was an initiative to really rebuild and relook at our entire training program, and we spent a lot of time and energy for probably a year with well over 50 people, 6 different groups, focused on different parts of our training, everything from our facilities to how we train in OJT, on-the-job training, what tools we use in the field once we leave the classroom. We call it performance support. You'll hear it referenced as PST,

performance support tool.

So we looked at how we schedule training, how we manage it, we looked at feedback loops, and things like OQ, and how we verify and validate training. We had all of these groups, and looking for probably a year and went all over the country looking at other utilities that were considered industry leaders in their training, like Atmos and Southwest Gas and PGE and some of those companies that were doing that.

We also looked at other groups outside of the industry and how they were training emergency responders. You know, we looked at fire departments and fire training centers. We went to the -- Quantico to see how the FBI trains using simulations and those kind of things. We went down to BP to look at how they trained after Horizon and how their training changed. We went to Disney to look at how they trained for customer service.

And what we started to do is we said, look, we are going to radically -- our organization is going to have a lot of turnover like the rest of the industry. We're going to see a lot -- as our programs grow, we're going to be adding a lot of people to our organization so we've got a huge need for training, especially entry-level training. Ours is very much a seniority-type based organization where over time you tend to migrate over your career to a higher level, higher skill job after many years. But those entry level people that are coming in, we knew we needed to really focus on them.

So when we started building our training program, that was our initial area of focus is this large influx of people coming into the organization, and how do we prepare them to get skilled. And one of the things that we wanted to do is we said we can no longer just train for tasks only, and really to some degree OQ focuses on tasks. And what we decided is we've got to focus on the whole job and we've got to focus on all parts of the job, whether it's customer service, whether it's paper work, whether it's how you interact with one another, whether it's how you hand off information. We needed to train people completely and we needed to build a program that focused on people not only from the moment they walked in the job, but ultimately down the road we needed a training program to support people a day before they leave the company, because learning never stops, technology changes, equipment changes, procedures change.

So we needed to be -- have a program that would support everybody along the way, so we went forward to build a more comprehensive training program for our frontend employees. We built four of these, what I call state-of-the-art training facilities over the last 3 years. We've rebuilt totally our entire training curriculum. We made that curriculum much more modular so that it could apply to many different work groups, because the long term strategy was this -- these modules, while they don't fit everybody they fit some. So we are now using some of those modules in training to train supervisors, to train

engineers, if it would apply, to train lawyers.

So the way we built that training, while focused for frontline employees, there's pieces of that training that we could then quickly adapt to a curriculum plan for other work groups. We've -- again, we've built that, brand new curriculum, brand new training facilities. We added almost 28 jobs across the footprint, what we call on-the-job training coaches, which is something I say is probably better than anybody's got in the industry.

While we still do your traditional on-the-job training where you go out and ride with your peers -- that is still very much part of our program is riding with your peers, now we have dedicated people part of the training organization called on-the-job training coaches that you're assigned to coming right out of training, and they are a mentor to begin to shepherd you through the rest of your development program and make sure that you're actually ready for your next phase of training. They make sure you're ready to be released to certain types of work activity. That all came in place in the last 2 years, and we have now rolled that out -- that's been rolled out across all seven of our states on the gas side of the operation, is these OJT coaches.

We've developed performance support tools. And, again, if one thinks about how people learn in any job, 90 percent of learning I would argue happens outside of a classroom, 10 percent is in a classroom, 70 percent is more on-the-job, 20 percent is

through mentoring. We've tried to really tackle that 90 percent of learning and support that as a training organization, while we've tried to enrich the 10 percent with better facilities, better trainers, better curriculum.

We really tried to focus on the 90 percent with these OJT coaches and our performance support tool, and what the performance support tool allows employees to re-access learning materials and support materials. Anytime they're on the job throughout the day, they can go back and recall a lot of their -- right on their phone, on their laptop, wherever they're at, they can recall information. I say all that because that's been our focus.

We've got a large amount of new employees so we started building training programs for our brand new people. We focused on where we were going to have a big influx of folks and rebuilt all of our distribution crew training, we rebuilt all of our service tech training, we rebuilt a lot of our locator training, our leakage coordinator training. We had solid measurement regulation training, we have rebuilt some of that training in terms of certain courses and curriculum and we continue to rebuild that.

But then those -- I'll go back to that training facility and training modules. They have now started to be where we can impact other parts of our organization by bringing them in to allow them to participate in certain modules and certain hands-on activities, and began to see where it's helping, whether it's supervisor

training or, again, whether it's giving lawyers a better understanding of what field activities go on or, you know, office operations people, we've really started to see widespread benefits to the path we started just 3 short years ago.

So I know that's a fairly long statement, so you can give me the high sign if you want -- if I'm going too deep, because I want to be respectful of you all's time.

DR. HOEPF: No, no. I appreciate it. We appreciate your time and, yeah, I mean -- no, I -- we needed kind of an overview so I appreciate the, you know, the overview. And it's just -- it's a lot of, it's a lot of ground to cover, so there's just not an easy, you know, quick way to do it.

MR. CHEPKE: Yeah.

DR. HOEPF: It's really -- that's really great. I think I'm going to go ahead and let Anne ask a couple of questions and we'll take it from there.

MS. GARCIA: Okay. Thank you, Mike.

BY MS. GARCIA:

Q. Just to start with just a couple of background questions. So what is your education background?

A. Yeah, I have a bachelor degree in civil engineering and a master's degree in organizational leadership.

Q. And where are each of those from?

A. Yeah, the bachelor's degree was from the University of Toledo in Toledo, Ohio, and the master's program was at Geneva College in

Pennsylvania.
Q. And, I'm sorry, again, what was the master's in?
A. Organizational leadership.
Q. What department is that under? Is that under psychology --
A. Probably more HR.
Q. -- or business?
A. Yeah, it's probably more of an HR organizational development type.
Q. Okay. Thank you. And you mentioned that Dave Varwig just retired as the safety VP. How do you spell his last name?
A. Varwig.
Q. Varwig.
A. V-A-R-W-I-G.
Q. Okay.
A. And Dave worked for Dave Monte.
Q. Okay. And when was it that he retired?
A. I couldn't be specific. It's been within the last 3 months, I believe, but I --
Q. After the incident?
A. I can't say that for sure.
Q. Okay. And was this a lateral move for you from vice president of training to vice president of safety?
A. Yes.
Q. Okay. I'm curious why you decided to make the move?
A. Was asked to. I had spent a long time developing my staff in

the training organization. My director of training was with me from the beginning of recreating the whole program. She's a very talented individual and I've been promoting her in terms of my replacement because I had been talking about and have been talking about retiring.

So having gone through working up in Massachusetts, looking at the organization, they decided that when Dave retired they asked -- they said, you know, Marie is going to be someone we -- Marie Walker -- promote to vice president of training, and that has since happened, which was very happy with. And they asked me if I would at least for now step into the vice president of safety role with Dave retiring and that position being vacant, and I was more than happy to do that. So, again, it's a new position for me and it was a need and they asked me to step in, and happy to do it. I had safety in the past, so as part of my role a number of years ago as vice president of -- not -- yeah, vice president of training and safety but only for the Columbia companies.

Q. Okay.

A. And then when we restructured things and I began to take over power delivery and power generation on our NIPSCO property as well, then it went back to just vice president of training. And then they brought Dave Varwig in to be vice president of safety at that time. That was about 3 years ago -- 2 to 3 years ago.

Q. Okay.

A. So, again, I had the safety group for a short period of time,

maybe a year, and then stepped away from it to go purely training. So it was an easy move for the company, to take back over the safety place and fill that role, at least for now till I decide what I'm going to do in my career.

Q. So someone stepped in as acting vice president of safety from when Varwig retired until when you took on the mantle?

A. Yeah, I believe. We certainly always had Dave Monte as a senior VP that had training in safety, and Dave is a very passionate individual over safety in the organization so he knows it very well, but he also relied on the directors within the safety organization to step up and continue to manage things as Dave Varwig moved on to retirement.

Q. And so in the brief time, 1 month, that you've been VP of safety, have you brought in any changes?

A. No, not at this time. Again, I am mostly watching, learning, asking questions, because the organization really is running well. I am very focused on where we're going with our new safety management systems and trying to get a better understanding of those. Still very new to that myself, so I can't really speak to it, but I think that's the next step for safety is how the safety organization integrates with that broader safety management system. So right now it's looking, watching, and learning, and guiding the team as they do that themselves.

Q. Okay.

A. Yeah.

Q. Thank you.
A. Yeah.
MS. GARCIA: That's all I have right now. Steve.
DR. JENNER: Okay.
BY DR. JENNER:
Q. Steve Jenner.
A. Hi, Steve.
Q. You had described for us what sounded like a very aggressive roll out of many different programs. I guess my question is, why? Was that based on some shortcomings that were identified or was that based on someone's interpretation of needs to address future challenges?
A. It's a great question. I think it's a number of things. One is, when you looked at the industry as a whole, not just the natural gas industry but the construction industry, the utility industry, and you look at the trends that are out there, there is a lot of potential turnover, there's big gaps over the years in hiring where you had this bell curve, if you will, of hiring. So we knew when you look out over a 5 to 10 year span that you were likely going to have a lot of turnover through attribution.
We also knew that as we were, like many other utilities, ramping up our infrastructure replacement programs, that we were going to be adding a lot of personnel to the organization. And with adding those personnel that creates a lot of movement within a company, so you not only just bring people in, people tend --

that are leaving on the backend are senior, so that creates two or three or four moves throughout the company. So that all requires additional training for those folks moving into new roles. So we knew that also was going to happen.

The other thing you look at is how quickly technology is changing in this and other industries, whether it's laptops, whether it's iPads, whether it's -- even your simple locating equipment is so much more complex with the advent of technology. So your common jobs that people do in the field are becoming more technology-based equipment for recordkeeping, for maintaining things, running things. So that technology was requiring the need for more training and our employees were asking for it as it continues to change. The industry certainly has been aggressive with changing as they learn through DIMP programs and TIMP programs and those type of things. That creates a lot of new programs and processes that you want continually to stay up on is another thing.

And probably a last thing that I would tell you is the students have changed over time. The way individuals learn coming through grade school and middle school and high schools, colleges, the way kids learn in colleges is vastly different than when I went to school. It's no longer chalkboards and lectures, right, it's group activities, it's computer based, it's all these things. And that's what we saw of the people coming into our organization, yet most utilities out there across the industry are still trying

to teach the old way with chalkboards and lectures and we knew that wasn't going to hit the mark.

So we really -- listening to all those different points of interest, you know, points of information, we knew we had to build a brand new training program and go much deeper with what we were trying to do for supporting people. So that's what drove us down that path. And we confirmed that. We did a lot of employee groups; again, we went out and looked at a lot of other utilities and what they were doing successfully. And as we decided, look, we need a more comprehensive training program -- you know, we've got good, solid OQ programs and we're making them better. We've done a lot with our OQ programs over the years, I think, to be on the front edge of a lot of those OQ programs that are changing in the industry. But we also knew that wasn't just enough, we had to -- we really had to train people more fully to do their complete jobs.

So that led us down that path and, frankly, the senior management of the corporation put a lot of effort into this by letting us add a lot of staff. We added a lot -- not only myself, but a number of people to the organization to devote to it. We brought in outside consultants. We put a lot of time, money and energy into rebuilding this thing the right way. And it has been fast paced, but the need is desperate out there in terms of those, all those people coming in. You want to be able to train them better than they've ever been trained in the past.

So I don't know, I hopefully answered your question.

Q. Yeah, absolutely. And let me give you a chance to toot your own horn here.

A. Yeah.

Q. I understand you were responsible for designing and building the facility right now in Columbus?

A. Yes.

Q. What does this facility bring to the company that the other ones haven't been able to?

A. So, yeah, I appreciate that. So back in 2013, Joe Hamrock, who is now our CEO, maybe because of my background and doing a lot of different jobs, asked me to take a look at our training, and that was at the end of 2013 and through 2014 we pretty much did a comprehensive look at all of our training.

Most of our training -- well, we had some very tiny, small facilities. Most of it was what I call back of the shop type training. And that's similar, where you went out to the local operations and you trained at their facility, you brought some props and tooling with you. That was -- a big part of our classroom training was out at the facilities that were there, and, again, for the number of reasons I mentioned, wasn't quite hitting the mark.

So as we looked at that, one component was looking at facilities, and we knew facilities were key if you wanted to go more hands-on oriented training, which fits a lot of our

employees, frontline employees well. It's a learning style the majority of them migrate to, they like. It strengthens their knowledge. And looking at all -- where the industry was going, that's where most of the utilities were already headed or had. So we started a path to say, how do we build the right type of facility that is going to meet the needs of all the different employee groups we have? And, again, we started the very first one in 2016, was in Pennsylvania, western Pennsylvania. It primarily serves our Pennsylvania and Maryland operations.

The next one that opened was right here where we're sitting, in Gahanna, Ohio, near Columbus, and it is a more expansive training center in terms of our measurement and regulation lab. And then near the end of 2017, we built one in Virginia to serve our Virginia property. Early 2018, we opened the one in Massachusetts to serve our Massachusetts property, and then we already had one in Indiana.

One of the things that we took a lot of pride in is all of the training facilities are for the most part identical. There may be some exceptions, like one might have a larger conference room because it's closer to a main office and holds more people or a more extensive M&R lab, but they all have M&R labs, they all -- all the classrooms are laid out identical. So if you're a trainer -- no matter if you're a trainer in Ohio, a trainer in Kentucky, a trainer in Massachusetts, you can walk into any facility and know where everything you need is, all the tools are, all the

curriculum materials are.

We know that our employees, if they don't make a training in Pennsylvania and they've got to go to a follow-up class in Ohio, they're going to be trained exactly the same way. So that benefits us. It moved the training closer to the field, but also gave us a lot more flexibility to make sure we were getting good, consistent training across the footprint. It's there.

So, again, the facility where we're sitting today, if you were to walk around the building you'd see it almost full today. Today's a really good day, we've got a lot of activity going on, a number of classes, everything from computer-based training to measurement regulation training to valve training to -- we've even got brand new employees out digging frozen ground out back, learning how to dig and use a shovel. So it covers a wide array of instruction out there.

So I hope that, hope that answered your question.

Q. Absolutely. One more question.

A. Yes, sir.

Q. One figure you stated I found very interesting, just that 10 percent of what people learn occurs in the classroom --

A. Yeah.

Q. -- 90 percent elsewhere. I wonder, how did you come to that?

A. Yeah. So as I began to look into training a number of years ago and read about it and learn about it and talk to experts about it, I had heard this figure and I kept reinforcing with people.

And it's a model, and I can't quote where it came from, but it seems to be universal and it certainly rang true to me as an individual, is -- even in my own education. I learned so much in the classroom and they call that the 10 percent. That's the classroom instruction, lab, where you -- it's core, it's critical, but then 70 percent is on-the-job. And I'm thinking back to my own career and said, yeah, that probably feels right. And then 20 percent of learning is really through those special mentoring relationships you've had and they -- those come into all forms, right. They could be a formal mentoring, they could be an informal mentoring that you have through somebody, but you learn a lot through that, and for me it rang true as an individual. It certainly rang true every time I bring it up to people that they could relate to it.

And so as we went down this journey and people began to get behind it, we said, you know, we've got to cover that 90 percent. What are we going to do? We could be the best training organization in the world with a 10 percent, have great facilities, great trainers, great material, but how do we support people beyond that? And that's where we started to look at the OJT coaches, that's where we started to look at our performance support tools, you know, and performance support tools are everything if you think about the way you drive today, right. You used to get a TripTik, a AAA TripTik to go somewhere; now you just Google it. That's performance support, right; it gives you

information that's critical to your job in the moment of need.

And so we started. We built a whole organization that is -- their whole job is devoted to helping come alongside training and helping to develop that material in a way that will support the employees beyond the classroom. And we pride ourselves in that because our instructors in the classroom begin to incorporate that into their teaching of how to rely on that equipment. So throughout class they'll say, stop, look it up on your performance support tools, stop, look it up on your performance support tools.

Because we're trying to get those behaviors in place so that when the student leaves they don't have to rely on somebody else that may not be there in the moment they need. There's not always somebody there, you know, 5 years later, and this way they become -- they know where to find information on their own, their procedures and things like that very timely.

So, again, it was just a lot of strategies that all came together and they made sense, and a big team of people worked very hard and I'm very proud of what this company's accomplished over the last 4 to 5 years. So, thank you.

Q. Great. Well, thank you.

A. Yeah.

DR. JENNER: That's all the questions I have.

DR. HOEPF: Roger.

BY MR. EVANS:

Q. This is Roger Evans. Thanks, Mark, for appearing today.

Just a couple questions. I just -- I know based on what you gave us as far as your background and where you've been in the firm, you've been in a lot -- you've touched a lot of areas of the company. I think you must have some firsthand knowledge of what I'm going to ask, I hope.

First off, in all of your time that you've been at the company have you ever been given a formal constructability review class, a training session?

A. Roger, I had a hard time making out -- what class?

Q. You know, a constructability class?

A. A constructability class?

Q. Where you go through a -- yes.

A. You know, Roger, I'm going back in -- you're taking me back many, many years to when I was in engineering and those kind of things years ago. And, you know, you're talking back in the late '80s and early '90s for that, that I was in those roles.

So training in some ways was different back then, that you had low turnover, you had a lot of senior people probably to be there as mentors and support, so it was probably more on-the-job training and peer-to-peer training back then. And I can't recall way back then formal training, unless I went to an outside group. But most of it at that time was peer-to-peer and on-the-job.

Q. Okay. That's fine. What about today? Is there a curriculum that covers constructability reviews, engineering projects?

A. Again, I would ask Kevin Swiger, I think who you're going to

be talking to, about the formal trainings they have. I will tell you that the training organization is currently building some of those courses focused on our construction inspectors, construction coordinators, as a need that's out there. They do train, I believe, peer-to-peer and on-the-job for constructability reviews. That's been part of their process in construction and engineering for a number of years, to my understanding, and, again, Kevin Swiger's the right guy to ask that. And I believe they do training -- it's not done by the training organization, but don't know who within their organization does it, whether it's formal or on-the-job. Again, I would ask him.

I can tell you that as we look out at what we need to build for construction coordinators and those folks, there has been discussions about, you know, that being training that would benefit the company and there's been some talk about that, and I think it's still being worked on from a formal class that the training center would teach.

Q. Okay. Okay. Final question is this: From a standpoint of, if engineering is going on and you are -- you know, your engineers are putting together some sort of a project, is there a class that your company offers that teaches risk assessment where you could go through and do a Y tree or a bow-tie or a failure mode and effects analysis type study on what they're doing? Is that part of what you do?

A. No.

Q. Do you train on that?
A. Again, I can't --
Q. Okay.
A. I would ask Kevin Swiger that question of what he does in his engineering training and curriculum. I could tell you from a technical training center we do not offer that class.
MR. EVANS: Okay. That's all I have. Thank you very much. Appreciate it.
MR. CHEPKE: Yeah, you're welcome.
DR. HOEPF: Is that all, Roger?
MR. EVANS: Yeah, that's all I have.
DR. HOEPF: Oh, he said -- okay. I'm sorry.
I think that just about wraps it up for me. I think we've pretty much, you know, covered the waterfront. I think that -- you know, I don't want you to comment on areas that are sort of, you know, outside of your area. It sounds like you've done a lot of work to get people who are new to the company up to speed.
I think as far as my questions are more oriented toward once you're a part of the organization, you know, how do you develop those management sort of oversight, you know, risk management sort of things. So unless you have anything, you know, specifically pertaining to those higher level sort of training things that you haven't already commented on that you'd like to comment on, I think that more or less wraps up my questions.
MR. CHEPKE: No, I can't think of anything directly.

DR. HOEPF: Okay.

MR. CHEPKE: No.

DR. HOEPF: Okay. Anne?

MS. GARCIA: No, nothing further.

DR. JENNER: Nothing else.

DR. HOEPF: Okay. Roger, do you have any wrap-ups or should I go to just the usual conclusion questions?

MR. EVANS: No, I'm good, I'm good. Thank you.

DR. HOEPF: Okay.

BY DR. HOEPF:

Q. You already answered that. Just, do you have any suggestions for improving safety in general or preventing a reoccurrence of this nature?

A. I certainly believe as an industry looking into developing safety management systems. What and how that looks within the gas industry is new, so I think the industry in itself is finding the right path forward as they look at the airline industry, as they look at the nuclear industry, and then how do you transfer that into the gas industry. I believe that's -- everything I know about it, it is the right way to go. I call it connecting the dots, you know. Again, you can have a lot of focused instructions and tasks but tying those pieces together, which is what safety management systems are designed to do to make sure you don't have gaps and holes in processes and learning and those kind of things, to me that's the right path forward, so I look forward to what

that brings to the industry.

Q. Okay.

A. Yeah.

DR. HOEPF: Great. Thank you so much. We appreciate it.

MR. CHEPKE: Yeah.

DR. HOEPF: Okay.

(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	MERRIMACK VALLEY RESIDENTIAL GAS FIRES AND EXPLOSIONS SEPTEMBER 13, 2018 Interview of Mark Chepke
ACCIDENT NUMBER:	PLD18MR003
PLACE:	Gahanna, Ohio
DATE:	March 6, 2019

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

[redacted]

Wade Donovan
Transcriber