UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*
	*
CON EDISON NATURAL GAS RELEASE	*
WITH IGNITION	* Docket No.: DCA-14-MP-002
HARLEM, NEW YORK	*
MARCH 12, 2014	*
	*

Interview of: JOHN LUDWIGSEN

Con Edison
4 Irving Place
New York, New York

Monday,
August 4, 2014

The above-captioned matter convened, pursuant to notice.

BEFORE: RAVI CHHATRE
Investigator-in-Charge

APPEARANCES:

RAVI CHHATRE, Investigator-in-Charge
National Transportation Safety Board
Washington, D.C.

KALU KELLY EMEABA, Accident Investigator
National Transportation Safety Board

MATTHEW NICHOLSON, Accident Investigator
National Transportation Safety Board

FRANK McCARTON, Deputy Commissioner
Office of Emergency Management
New York, New York
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ANASTASIOS GEORGELIS, Director of Field Operations
Bureau of Water and Sewer Operations
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LEONARD SINGH, Chief Engineer
Gas Distribution Services
Con Edison
(Party Representative)

CHRIS STOLICKY, Utility Supervisor (Safety)
New York State Department of Public Service
(Party Representative)

ROBERT ALBANO, Esq.
(Representative on behalf of Mr. McBrien)
Washington, D.C.

I N D E X

I N T E R V I E W

MR. CHHATRE: Good morning.

MR. LUDWIGSEN: Good morning.

MR. CHHATRE: Today Monday, August 4, 2014. We are currently in Con Edison's facility, located at 4 Irving Place, New York. We are meeting regarding the investigation of natural gas distribution pipeline leak and multistory structure explosion that occurred on March 12, 2014 in Harlem, New York.

My name is Ravi Chhatre. I am with National Transportation Safety Board located in Washington, D.C. and I'm Investigator-in-Charge of this accident. The NTSB investigation number for this accident is DCA-14-MP-002.

I would like to start by notifying everyone present in this room that we are recording this interview and we may transcribe it at a later date. Transcripts will be provided directly to the interviewee for their view and identifying any typographical errors. And the transcripts may be posted in NTSB's public docket.

Also, I'd like to inform Mr. John Ludwigsen that you are permitted to have one other person present with you during the interview. This is a person of your choice: your supervisor, friend, family member, or no one at all.

Please state for the record your full name, spelling of your name, organization you work for, your title, business contact information such as mailing address, and whom you have chosen to

be present with you during today's interview.

MR. LUDWIGSEN: Okay. My name is John Allen Ludwigsen, that's J-o-h-n, A-l-l-e-n, L-u-d-w-i-g-s-e-n. I'm a senior engineer in gas distribution engineering. My mailing address is [redacted]. And I have Bob Albano, who is my person here that is --

MR. CHHATRE: I'd like to go around the room and have everyone introduce themselves. Again, please state your name, spelling of your name, your title, organization that you represent and your business contact information. We'll start from my right.

Matt?

MR. NICHOLSON: Matthew Nicholson. I'm an investigator with the NTSB. That is spelled M-a-t-t-h-e-w, N-i-c-h-o-l-s-o-n. E-mail address is [redacted]

MR. EMEABA: I'm Kalu Kelly Emeaba, K-a-l-u K-e-l-l-y E-m-e-a-b-a. I'm an investigator with the NTSB. My e-mail address is [redacted]

MR. McCARTON: My name's Frank McCarton, it's M-c-C-a-r-t-o-n. My e-mail address is [redacted] I'm a member of the New York City Office of Emergency Management, but I'm also the New York City party rep on this investigation for the Harlem explosion.

MR. GEORGELIS: Anastasios Georgelis, A-n-a-s-t-a-s-i-o-s, Georgelis, G-e-o-r-g-e-l-i-s. I'm with the New York City Department of Environmental Protection, Water and Sewer

Operations. I'm the Director of Field Operations. My e-mail address is [redacted]

MR. SINGH: Leonard Singh, L-e-o-n-a-r-d, S-i-n-g-h, Chief Engineer, Gas Distribution Engineering, NTSB party rep representing Con Edison, [redacted], s-i-n-g-h-l at [redacted]

MR. STOLICKY: Chris Stolicky, S-t-o-l-i-c-k-y. Title is Utility Supervisor (Safety) with the New York State Department of Public Service. E-mail address is [redacted] I am the party rep for New York state.

MR. Albano: Robert Albano, R-o-b-e-r-t, A-l-b-a-n-o, Con Edison. I'm accompanying Mr. Ludwigsen at his request.

INTERVIEW OF JOHN LUDWIGSEN

BY MR. CHHATRE:

Q. Okay. John, for the record, can you state your formal education and training, years in the company, your current title?

A. Okay. I have a mechanical engineering degree from Rutgers University. I also have a Master's of Business Administration also from Rutgers University. I've worked with Baltimore Gas and Electric in their nuclear power plant for 5 years, worked with Elizabethtown Gas for 10 years, and then I've been with Con Edison here in, I guess, engineering for 7 years now.

Q. And at your current position, can you describe what your

responsibilities are?

A. I've been working in the standards and reliability group, and then I got kind of transferred over into field engineering and system reliability, but my job stayed the same. I work on our distribution integrity management program. I've been doing that since the inception of that back in 2011. I also am kind of the coordinator for the public awareness program and have been doing that since I started with the company, for the past 7 years.

I also do some of the reporting for the mechanical fitting failure reports, do the plastic failure reports and help out in a few other, you know, like areas in -- with our standards and things like that and posting them up onto the websites.

Q. So you are responsible for DIMP?

A. Um-hum.

Q. Can you, maybe, really, really briefly, walk us through when the program started with Con Edison, how it was developed, and your involvement and what the program focuses on?

A. Okay, um-hum. Well, the rule had -- we had to have a distribution integrity management program in place by August of 2011. We adopted the Northeast Gas Association and the Southern Gas Association's framework that they had developed. We had also gone ahead and hired Structural Integrity, who was the one who wrote up that framework, and they helped us -- and it was our contract -- they helped us developing our own Con Ed-specific

program using that framework plan.

What was the second part of the -- you wanted -- so that's kind of the basics, that we -- you know, we had everything implemented by the August of 2011 date, you know, capturing all the different parts of the plan that are required in there.

Q. And when did you start working on the program itself, before you finished it?

A. Well, we had been waiting for the rule for several years beforehand, so we were just kind of waiting for the rule.

Q. Okay.

A. So once the rule had come out, I had started working on it.

Q. Okay. And when did you finish it?

A. The August 2011 --

Q. Okay, so you met the deadline?

A. Yeah, um-hum. And since then, we've done an annual update in -- by the April -- we set it up so that our deadline was April 15th. We did one, a complete program evaluation in 2012 and again in 2013. I'm sorry, 2000- -- so no, it was --

Q. '12, was it?

A. Right, we did two of them. Got to make sure I get my dates right.

Q. Well, if you don't know the dates, when it comes back to you, we can update.

A. Right. I might -- well, the last -- this 2014, which

was for program 2013, we had only did the annual review on that one, not a complete evaluation.

Q. So for this integrity management program, is it supposed to be reviewed annually or every 2 years, or --

A. We have it set up on -- the rule requires you to do it for 5 years. We have it set up as a 3-year. But since then we've done the complete one, the complete evaluation the first 2 years, after we put it in, in August.

Q. Okay. So the rule says 5 years, but you are doing it --

A. Every 3 years.

Q. -- every 3 years.

A. Or if situations change and we feel like we need to do it again, we'll go ahead and do it at any point.

Q. And the review is a total overhaul of the report or certain sections of it, this 3-year review?

A. The 3-year is a complete program reevaluation.

Q. And who does that?

A. That's me leading it, with the distribution, you know, DIMP team that we have. You know, the different operating areas, our lab and, you know, all --

Q. And you select the team or somebody else does for you?

A. Working with my manager, we select who the team members are going to be.

Q. Okay. So your manager is the person you report to?

A. Um-hum.

Q. And how do you get a commitment from the people you choose?

A. I don't know. They just -- we ask them and they --

Q. The people volunteer.

A. Yeah, they're willing to do it.

Q. Is there a guideline of what the team should be consist of, that certain people from certain departments are mandatory or it's just your discretion?

A. Well, we try and get somebody from each of the different operating areas, somebody who has a lot of years of experience in the company, who knows what's been going on, you know, way back. You know, some people have 40 years' experience in here. We also get the lab involved also because they have a lot of experience with the failures that we've been seeing, so --

Q. And in developing the program, did you guys look at the past failures, in developing the program, to identify your threats?

A. Yes, we have. Our basic program is that we look at 6 years' worth of data, which is based upon -- we chose 6 years because that's two times of our non-business district surveys, which we do every 3 years. You know, that's in our actual developing our risk ranking and things. But from the standpoint -- we looked at our entire history when we were doing our initial setup, you know, when we had our SME interviews and, you know, we had a whole guideline of what -- you know, have you seen these

things in the past? So that was for the -- the initial one was going all the way back, as many years' experience as people have had.

Q. My questions more involve -- really are focusing up to the point of the accident. So anything you guys --

A. Okay.

Q. -- anything you guys did after the accident, you know, if you want to mention that, mention specifically.

A. Okay.

Q. But my questions are really focusing on before the accident.

A. Um-hum.

Q. Now your trade identification, what consideration was given to plastic pipes and plastic fusion joints and things like that?

A. Well, we based everything on our repair history, and that's entered into our graphic -- our gas inspection system, GIS, not to be confused with the geographic information system. In there when they're doing a repair, they mark, you know, what material it was and what they feel that the cause code was on there. We have several different leak cause codes and we have a little table that summarizes which of those cause codes go into the different threat categories in our DIMP program.

And if they send the sample -- you know, when they took a section out, if they send it to the lab, that's marked onto GIS

and the lab will do an analysis of that and we'll get back what the results of that are.

Q. And who makes the inputs in your GIS system?

A. It would be the mechanic actually doing the repair or the supervisor.

Q. Mechanics or the supervisors?

A. Mechanic or.

Q. Okay. And how does the mechanic give the information if he or she is not directly sending it to the system? How does it get into the system, to the supervisor? What is the process for that?

A. That, I am not really sure on that end of it. I don't get involved. That would -- I don't get involved into that area of it.

Q. Understand. And how often you guys look at the information that's in GIS?

A. Well, depending upon what it is and plastic failures, I have to look at it monthly because I send a monthly report to the AGA and a report goes quarterly to the PSC. So I'm constantly looking at it from the standpoint of the plastic failure. Some of the other ones I don't look at. Yeah, the other failure types we really don't look at, except during the annual review.

Q. Okay.

A. Unless we happen to hear of something that's going on into -- you know, we're getting a rash of particular types of

failures, then we'll go ahead and investigate further.

Q. So with your, I guess, experience with Con Edison and years of experience prior to that, what are the safety factors you identified with the plastic pipe? Issues, rather, safety issues?

A. Well, from the standpoint of plastic failures, the majority of our failures have occurred on our Kerotest valves that we had installed back in the early '90s.

Q. Which valves? I'm sorry.

A. Kerotest.

Q. Okay.

A. It's a nut follower valve on there and there's been some issues, and that's been our largest failure mode that we've had. And it typically is that they -- one of two things either happen, and there's always an argument between us and the manufacturer of which it really is: if the nuts were tightened enough or, over time, that the nuts are starting to loosen up and it's causing a leak that way. So it's leaking between the fitting and the pipe.

Q. Okay. Now, I'm sorry, I'm not familiar with it. Where does those fittings go?

A. They're usually on the service lines.

Q. On the service lines.

A. Um-hum.

Q. And are they near the meter or where on the service line?

A. They would be by the curb.

Q. By the curb?

A. Yeah, they typically are the curb valves.

Q. Okay. And the solution is to replace those?

A. Yeah, we replace them whenever we find them. Sometimes it's a temporary repair, just to tighten the nuts and then we'll go back in there and do a complete replacement of the valve.

Q. And what about the, I guess, sturdiness of the plastic pipe? Is that an issue?

A. We've had very few issues with the failure of the plastic pipe itself.

Q. Okay. Is there a specific way the ground has to be prepared before you lay the plastic pipe versus steel or cast iron?

A. I don't really get involved in the area of how they do restoration.

Q. We've got an area from DIMPs side of -- and I realize you are not -- from the DIMPs side of it, is the ground any concern?

A. Well, we do look in the ground. If there was some sort of an impingement that might have been the cause of the failure, we'll look at it from that standpoint.

Q. Well, I'm more looking from the geographic strata. Is the ground rocky, the ground is soil; is that a concern?

A. It is a concern, but we do not have the capability of capturing that presently in our distribution in our DIMP program

right now because we're not based upon a geographic information system base. We're kind of based on some land-based coordinates that we have and not real-world coordinates, so we can't, like, overlay all these nice maps that are out there, you know, knowing where the schools are and where the business districts are and how we lay that over onto where our actual mains and services are, which is a program that we're working on. In another couple of years we should have that.

Q. Okay, but does the, I guess your information sheet that comes from your technician, do they have any area there that they can identify the ground is rocky, the ground is unstable? I realize you need to get information --

A. Right.

Q. -- but how will you capture it if there is no information coming to you?

A. Well, there is -- what type of soil is captured in there: if it's loam, if it is rocky. So that type of soil is in there.

Q. It is captured?

A. Yes, it is in there.

Q. So it's already -- the data is available?

A. Um-hum.

Q. Okay. And is there a rating, a ranking for that in your calculation of ratings and risks?

A. It's not captured in risk, no.

Q. Okay.

A. Because we're still -- don't have the capabilities of doing that yet.

Q. That's fine.

A. Yeah.

Q. Now with the data you guys have looked at, are there any fittings failure information that you have noticed while developing DIMPs?

A. Yeah, there was -- we had some issues with some mechanical fitting failures. It tends to be in our Queens section, in certain areas there. So we've been concentrating on some of our main replacement programs to take care of the fitting failures that we've been seeing in there. And then we did a pretty good job in that area, so now we're starting to concentrate on some areas in Westchester where we've also seen some of the higher failure rates.

Q. And those are fittings into the service tees, or they are different?

A. They are different, because these are the couplings themselves. They're connecting two sections of pipe.

Q. What about the service tees? Is that -- have you had data that shows so many service defect areas --

A. Nothing that has come up as one of the higher risk items, no.

Q. Is that --

A. The data is all available there, but it doesn't really come up as one of the higher risks.

Q. Is it included in your calculations for likelihood of failure, consequence of failure, and priority of failures?

A. Right. In our consequence of failure we have four factors that we include in there. And one of them is our loose fittings on high pressure mains, and the other one that we have in there is our cast iron breaks. We kind of use those as some factors. We also do population density and number of hazardous leaks that we have in a particular area. Those are what our consequence factors are when we're developing our risk scores.

Q. And how does a cast iron pipe rate in your DIMPs program, ranking-wise?

A. It's the second-highest. Our highest risk tends to be on the unprotected steel, for corrosion issues.

Q. Okay.

A. And cast iron is usually a second in there, but like the top 20 is all on bare steel corrosion.

Q. And how the DIMPs program is used to decide which pipes get replaced for cast iron or steel?

A. DIMP is a high level overview of the program. It doesn't go down into the individual segments of a pipe. We have a main replacement program that does that, which more tries to predict what is the next piece of pipe that's going to fail. But that only is concentrating on mains, where DIMP is looking overall

main services, all threat categories, all materials.

Q. Okay. But does a replacement program utilize this DIMPs program in any shape or form?

A. It feeds into what -- there's no direct connection between the two, but we know what our threats are here, and that's the same things that were being addressed in our main replacement program. I mean, we are hoping to get something into the future that will actually link the two together, but we don't have anything at that point.

Q. So as we speak right now, the DIMPs program has no direct input to the replacement program?

A. Well, there's talking to the person who does it. You know, there's a coordination between it, but there's no direct link between the two programs, so it's a person-to-person connection.

UNIDENTIFIED SPEAKER: I just want to clarify something. When you say program, software program?

MR. LUDWIGSEN: Yeah.

UNIDENTIFIED SPEAKER: As opposed to programmatic, right? So we do have a -- the programs talk. I mean, people -- there's physical, but the software doesn't talk.

BY MR. CHHATRE:

Q. Okay. That is fine, but the person who makes the decision which pipes get replaced, does that person talk to some person in DIMPs or is the requirement that they will consult the

input and information from DIMPs program in making that decision? I'm just looking for the formal procedure. That's all.

A. Right. I'm trying to remember if I -- we work in the same department, so we coordinate together when we're doing our department meetings, but there's nothing that's any written procedure that says we have to coordinate between us. But we sit in the same area and we talk together and when it --

Q. It's not like somebody has to check that thing out just to make sure it doesn't fall through the cracks.

A. Um-hum.

Q. Now how does a cast iron replacement program -- and if you remember, answer it; if not, you can get back to us later. The cast iron pipe on Park Avenue, how high that was on your list ranking?

A. I would have to get back to you on that.

Q. Okay, if you would, please.

MR. SINGH: You want the cast iron risk ranking on Park Avenue?

MR. CHHATRE: Yeah, Park Avenue.

MR. SINGH: Um-hum. I'll get that to you.

BY MR. CHHATRE:

Q. And which cast iron, if you remember, was ranked highest in the cast iron only, not overall replacement? Which area?

A. Now, I'm not sure on that one definitely.

Q. Okay, if you can get back to me on that one, too?

MR. SINGH: I'm sorry --

MR. LUDWIGSEN: Because now, are you looking at DIMP or their main replacement program, because it's a little bit different?

BY MR. CHHATRE:

Q. No, I'm looking at your ranking in DIMPs, your risk ranking.

A. Okay.

Q. Which is the highest risk ranking for the cast iron pipe, which area?

A. Well, from resolution-wise the lowest we go down to is we'll have what threat it is. So say it's corrosion or break, natural forces, which would be cast iron. Then we have -- that's the threat. Then we have what area it is in. So we break our system down by district, so, like, in Manhattan we have three different districts. And then it's been broken down by material and then we would have what our risk score is.

Q. Right.

A. So that would be the lowest level that I could give you, would be threat, material, and location, you know, district-wise location.

Q. Let me back up. With your DIMPs program do you rank different pipe segments for their relative risk or you don't?

A. Not individual pipe segments, no. It's just a high level overview of the program.

MR. SINGH: Just --

MR. CHHATRE: Go ahead.

MR. SINGH: Two pieces of this.

MR. LUDWIGSEN: Right.

MR. SINGH: We have a -- the DIMP program gives us the overall threats of our system. Our main replacement program takes that information in consideration, where we rank steel and cast iron -- bare steel and cast iron, small diameter piping, and we take a look at ranks, every segment across the enterprise, by region or we can do it holistically, by the entire system.

MR. CHHATRE: Okay.

MR. SINGH: So, and within that, we use the information from DIMP that says this segment -- cast iron threat -- breaks is one of our threats. Where do segments rank? Corrosion from bare steel is a threat. Or let's say we see within DIMP a coupling, 2-inch coupling failures. So when we do our main replacement program, we incorporate that over time to adjust to those threats that we see.

MR. CHHATRE: So the DIMPs program does not give a relative ranking to different segments, or --

MR. LUDWIGSEN: No.

MR. SINGH: No, sir. Our main replacement program does that.

MR. LUDWIGSEN: Does that, right.

MR. STOLICKY: Just so we're clear -- this is Chris

Stolicky -- DIMP is an overall risk management tool for your system, your distribution system. So you have -- type of material is a factor because you have threats such as damage prevention, you have underground utilities, you have, you know, low lying flood-prone areas. You have all those factors in play. But when it comes to the pipe replacement program, as I understand it, you're focused on those specific segments of pipe that are the highest risk, meaning your small diameter cast iron, your certain vintages of bare steel that are more susceptible to leaking. Correct me if -- that's how I understand it.

MR. LUDWIGSEN: Yeah, that's perfectly correct.

BY MR. CHHATRE:

Q. No, that part I understand. My only question is that how far does DIMPs program go, then? I mean, if you just got -- you said you're looking at overall picture. Do you guys -- where do you start? You don't rank any of these pipes? There is no relative ranking from the information you --

A. Not in DIMP. That's where we use the main replacement program, to do the relative risk ranking on individual segments at this time.

Q. Maybe you should explain then what the DIMP program looks like, because I thought you were giving relative ranking to different segments, would be the DIMPs program --

MR. NICHOLSON: Do we have a copy of the DIMP program? Can it be brought up or something on a screen?

MR. SINGH: We can get you a copy. I mean, it's a pretty large document.

UNIDENTIFIED SPEAKER: But we have submitted it, yes.

MR. SINGH: So Rick might have that.

MR. NICHOLSON: You can't look at the ranking up on the screen or anything?

MR. SINGH: Look at the rankings?

MR. NICHOLSON: Can you bring it up? Yeah, the ranking for any particular area, so we get an idea of how it's --

MR. SINGH: That's a voluminous file. I mean, you're talking hundreds of -- you know, thousands upon thousands of segments. And a segment --

MR. NICHOLSON: I thought in DIMP it wasn't at the segment level.

MR. LUDWIGSEN: Right.

MR. SINGH: No, it's not.

MR. NICHOLSON: So it's not segments. It's by material or area, right?

MR. LUDWIGSEN: It's by threat category, district and material.

BY MR. CHHATRE:

Q. So you lump the entire district in your DIMPs program and give a relative ranking for that district compared to other districts?

A. Right. Um-hum.

Q. So maybe explain how does a -- a risk ranking for a district is given, assigned? A district is fairly large, if I understand it correctly.

A. Right.

Q. So there may be areas which are more prone, areas which are less prone. How does those things dictate the ranking of a certain district?

A. The -- it lets us know that there is a particular issue in that area. Then we rely on the main replacement program to go ahead and identify which individual segments within that area are what needs to be replaced.

So one is just a high level, looking at it and saying, okay, this is where you need to look at. And then we have our main replacement program, which is also -- and main replacement program adds some more additional factors in there that our DIMP program cannot do.

Q. Like?

A. They do background failure zones. They do your -- diameter is a factor in there. Gas ingress factors are included in there, so how much open surface that you have, proximity to sellers. Those are factors that are done inside of our main replacement program but not done within our DIMP program.

Q. So DIMP program does not rank those past failure histories when you rank your different districts?

A. They include the four factors that I discussed earlier.

Q. Okay.

A. So your frequency of failure for those different categories and then you have your four consequence factors. So it would be your loose fittings on high pressure mains, your population density, your number of hazardous leaks, and your number of cast iron breaks in a particular area. Those are consequence factors.

Q. And there are only four factors in your DIMPs program?

A. Yes, at this time, because that's basically all that we can do with the system that we have.

Q. Okay.

A. We need to move into a more graphical information system in order to change what we're having and add in additional factors in there.

Q. Okay.

MR. STOLICKY: Are there more factors that are considered by an SME beyond the software at this point in time?

MR. LUDWIGSEN: Well, we look at things that aren't necessarily captured in there, like the seismic threat and there's a few other threats for like the sewer cross bores and areas like that that we look at, and we use the SME experts to help us with that part of it.

MR. STOLICKY: Is that quantified somehow as a threat?

MR. LUDWIGSEN: Yes, we do assign a particular risk score to that based upon looking at, okay, these are the number of

-- the risk scores that we have in the other areas and how would you feel that these numbers compare with the scores, you know, threat of a seismic activity in New York City.

MR. STOLICKY: Okay.

BY MR. CHHATRE:

Q. So do you, as the person responsible for DIMPs, do you have any interaction with the pipe replacement program at all or you just do your thing and they do their --

A. No, we're in the same department.

Q. Okay.

A. The same, you know, group.

MR. SINGH: Manager.

MR. LUDWIGSEN: Same manager.

MR. CHHATRE: Same manager, okay.

MR. SINGH: They both work for the same manager, who ultimately works for me.

BY MR. CHHATRE:

Q. Okay. So how does the information that you don't have gets developed by the pipe replacement? Do you have -- do you get anything back to you? Any input then from the pipe replacement program that you can define your DIMPs program?

A. Really it's more the information should be fed that way, unless there's some particular issue that they're seeing. But we pretty much know that it's the bare steel is an issue. We know where it is, for the most part. They might have some slightly

different scores. You know, they have a better ranking system, because obviously I'm only high level. They have individual segment ranking.

Q. So what does your ranking involve? Is it just an overall district is the only ranking or you break it down to some kind of a --

A. Nope. District is as far down as we go on that, where we're relying on the main replacement program, which is, you know, part of our DIMP program. You know, it's there but it's not our relative risk ranking scores that we have.

Q. Okay.

A. I guess you could look at the main replacement program as a subset of our distribution integrity management program.

Q. Okay. That's all for me. Thanks.

MR. CHHATRE: Kelly?

BY MR. EMEABA:

Q. All right, you've asked pretty much all the questions because I wanted to find out how you implement your DIMP and you've actually elaborated on that.

You mentioned something about the Kerotest valves and so on and so forth. Apart from the valves having problems -- you found problem with the Kerotest valves, correct?

A. Um-hum.

Q. The service tees, do your people use it and do you have it in your system?

A. A particular type of service T, or --

Q. Yeah, do you also use any Kerotest? Do they have that, for the service tees?

A. No, we do not have any Kerotest service tees. I'm --

Q. In your system.

A. The only ones that I'm aware of that we've been -- I'm only looking at what failures that I've been seeing and I have only seen it in the Kerotest valves.

Q. Okay. What do Con Edison see or terms as being hazardous leak?

A. What's that?

Q. What do you term as hazardous leak?

A. Oh. There's a rather big definition and I'm not really a good expert on that because it takes into condition of proximity to buildings and if there's readings and manholes and things like that. I'm not, you know --

MR. SINGH: I can give --

MR. LUDWIGSEN: I don't know if you can do a little bit better on the --

MR. SINGH: I can give you a chart that shows, that explains, yeah.

MR. CHHATRE: We have ordered this chart.

MR. SINGH: Okay.

MR. EMEABA: Do you have it already?

MR. CHHATRE: I think it should be in the commentary,

but I have it here. I have it here right now.

MR. EMEABA: Okay.

MR. STOLICKY: Let me try to clarify that. Do you know if it's the definition under the USDOT annual filing requirement or does it mirror pipeline safety regulations, classification of leaks?

MR. SINGH: I think it's much more conservative than the Part 192 you're referring to. I believe it's more conservative than 192.

MR. STOLICKY: Okay.

MR. LUDWIGSEN: Yeah, that's the chart.

MR. STOLICKY: That, okay, so that's -- it's the state --

MR. SINGH: Right.

MR. STOLICKY: -- for those classes.

MR. SINGH: Right. So I believe it's a little bit more conservative, right?

BY MR. EMEABA:

Q. Yeah, because I know when we were talking about (indiscernible), you were talking about the classification of leak is there, because they are two different things. When you call -- depending on what the company has seen, what you call a leak being hazardous and what you actually see it as, okay, you put it in this class and so on and so forth. So that's why I wanted to find out from you what is being practiced currently, not just what is

written in the paper, because you could have it there and it's not being followed. So I can look at that later on and then see if there's anything coming out there.

Now, what criteria do your mechanics and supervisors use to assess pipeline condition before reporting it? Because you mentioned -- you were asked a question by Ravi how you get the information on the threats, on the plastic pipeline and so on and so forth. And then you mentioned the fact that you get information from your mechanics and the supervisors and all that. So what criterias, what parameters do they actually look at, you know, to assess it?

A. Well, it's only on a repair. So if there is a leak and they go out and do a repair, that's where I am capturing the information. So they're looking at what the original material is. They're looking at what the size is. They're looking at the type of soil that it's in, the depth of cover, what is the leak cause, where the leak is located, and then they have sections putting in comments in there. There's a bunch of other fields that I'm missing. I can give you a complete listing of everything that is captured in the repair screen, but that's some of the basic information that's in there.

Q. Okay. You also mentioned in the first answers you gave here that you're in charge of the standards and reliability. And you also, you have oversight of the plastic pipeline installations and failure, correct?

A. Reporting of them. I'm not --
Q. Reporting of the failures?
A. Reporting of the failures, right. I'm not in charge of the standards and reliability group. I'm just a member of that group.
Q. Okay, you're a member?
A. Yeah.
Q. Okay, so as a member of the standards and reliability, do you also consider the aspect of the training of the individuals who actually do those installations?
A. No, I do not. And I am not currently in standards and reliability. That was where I was for the first 6 years. Then they transferred me over to field -- well, I'm sorry, no. Because I was -- standards and regulatory issues was my first department I was working for. Then I switched over to field engineering and system reliability. So I don't know if I got it mixed up in my head here on which one you said. Did you combine the two?
Q. You had both of them --
A. Okay.
Q. -- standards and liability, then oversight of installations and failure reports you mentioned.
A. I'm doing the same job. I'm just reporting to a different manager, because we felt that being part of the DIMP part, more -- should correspond with the people who are doing the main replacement program. It was under the system reliability

section.

Q. Okay. In the past 5 years, what can you tell us about how much -- since your implementation of the DIMP, what can you tell us as a result, changes have been made as a result of that?

A. One of the things that we've been trying to change is the quality of the information that we're getting out of DIMP. When we first ran the program there was a -- the mechanics had the option of putting in a cause code of "other." And that was, in the first year there was like 40 percent of the repairs were cause code other. So we were trying -- and which doesn't help you at all when you're trying to do your DIMP trending and your risk analysis.

So we've been doing some programs, training the supervisors, going to the managers meetings. And like when I'm reviewing the plastic failures, whenever I see that cause code other, I ask them to please give me something else. So we've been reducing our others this past year. We were down to 8 percent as a cause code of other on there.

We also added some new threat categories so that we could better determine what types of failures that we're having on there. We added water main breaks as one of the failure causes, water main impingement. Tree roots was also something, especially during Hurricane Sandy we had a lot of problems with the tree roots pulling up the services. So we were adding some threat categories to help us learn where some of our problems are. I

believe we also added the bored through sewer cause code.

Just trying to help us focus in on where some of our problems are. We added, this past year, instead of just saying that the material is plastic, we're asking them to put in what type of material; so that if it's Adelaide plastic, if it's a Drisco pipe. Or, you know, we tried to make it a little bit easier and we just did it based upon color, if it's a green, for -- you know, because we had the Adelaide 4A, which is green; the Adelaide A, which is the tan; so we did it with the black, the yellow, so -- so we're now capturing that, so hopefully in the future we'll be able to start seeing some individual trends in your plastic failures based upon materials.

Q. Okay.

A. Because we know what we have in the system but we don't know what the failure is -- you know, the material, when you did a repair, what that material was, other than just being plastic.

Q. Okay. You just mentioned tree roots affecting your pipeline or pulling out your services. Does it affect your plastic pipeline equally as it affects your cast iron pipeline? What effect do the tree roots have, both on your plastic pipeline and your cast iron pipeline?

A. We really have not seen that many instances of tree roots to develop any sort of a trend on that right now. The occurrences have been very few, especially because we've just added that as a threat cause code within the past 2 years. And

most of those were due to Sandy on services. And it didn't really matter, the material type; when the tree root was coming up, it pulled everything up.

MR. NICHOLSON: I think you're saying when the tree topples over, the roots are pulling the gas line out.

MR. LUDWIGSEN: The services up, yeah.

MR. EMEABA: Okay, I see what --

MR. NICHOLSON: I know where you're going --

MR. LUDWIGSEN: You also have the issue of the tree roots getting into a cast iron main, you know, I think is where you were also looking at possibly, so --

MR. NICHOLSON: Right.

MR. STOLICKY: Do you have any cast iron services?

MR. LUDWIGSEN: No.

MR. STOLICKY: Okay.

MR. SINGH: Probably a better answer is not that we know of.

MR. LUDWIGSEN: Yeah. There should not be any cast iron services.

MR. SINGH: Or wood ones.

BY MR. EMEABA:

Q. Now, since most of the, or all the failures are reported to you, can you tell us percentage of, if you have the numbers, in the past 5 years of leaks that came from partially new installations or from new installations done in the last 5 years?

A. I have all the raw data that I can pull up. Since we started with the system, I believe it was in -- well, it depends upon which area you're looking at. If you're looking at plastic failures only, that was since 2009. I have a database from that. If it was from GIS, then we have it from a lot longer time period. So if there was something in particular that you --

Q. You can go from 2009.

MR. NICHOLSON: Well, I just want to -- let's just -- this is a good point for me to put in my two cents. I would like to request that database, then, your plastic failures database, 2009 forward.

MR. LUDWIGSEN: Okay.

MR. SINGH: Okay.

MR. NICHOLSON: And just give it to us as -- don't PDF it. Provide it -- is it Excel or Access or --

MR. LUDWIGSEN: Okay. Well, there's two ways -- we had it -- I took over in 2009 doing that.

MR. NICHOLSON: Okay.

MR. LUDWIGSEN: Before it was all a paper-based system, so there's just papers somewhere in the office.

MR. NICHOLSON: I don't want those.

MR. LUDWIGSEN: Right. Initially we had the paper came -- let's see, I want to make sure I get this right. I was taking the paper and putting it into a database when I first started in 2009. So I have that from roughly 2009 to 2011 is a, from the

paper into an Access database.

MR. NICHOLSON: Oh, okay.

MR. LUDWIGSEN: Then, I wanted a program enhancement, so what we did is we added into our GIS system that whenever the material failure was -- original material is plastic, it would kick in, it would open up a screen where they would have to fill out the plastic failure report in there. So it's now done electronically.

MR. SINGH: So Matt, just to clarify, you want all plastic pipe failure from 2009 to date?

MR. NICHOLSON: Yeah.

MR. SINGH: Just one point of note is that we don't just install plastic today as new. We also install steel, coated -- you know, protected steel.

MR. NICHOLSON: Oh, I see. And that will show up --

MR. SINGH: Well, we have other -- I mean, so from a failure perspective, if there are failures on that, do you want that too or do you just want plastic?

MR. NICHOLSON: I was just looking for plastic.

MR. SINGH: Fair enough. I just want to make sure.

MR. LUDWIGSEN: Okay.

MR. SINGH: That's fine.

MR. NICHOLSON: At this point.

MR. LUDWIGSEN: What I did is I combined those two. One was -- the two Access databases basically into one Excel file

right now.

MR. NICHOLSON: Oh, okay.

MR. LUDWIGSEN: And there is some data that doesn't capture from one to the other, so those fields are blank. But I now have one file for that right now, so if that would be --

MR. NICHOLSON: Combines both.

MR. LUDWIGSEN: Yeah.

MR. NICHOLSON: Yeah, okay. Yeah, that's what I'm looking for.

MR. SINGH: So I'll get that before you leave.

MR. NICHOLSON: Yeah, great.

MR. SINGH: I mean, it's, if it's big enough, if I can mail it, if not, I'll give it to you on a flash drive or something.

MR. NICHOLSON: No, just -- yeah, just --

MR. STOLICKY: So when you provide that, can you not restrict rights so it can be sorted and manipulated?

MR. NICHOLSON: Well, that's the whole point of getting it raw.

MR. SINGH: Yeah.

MR. NICHOLSON: Don't do any kind of crazy password.

MR. STOLICKY: I work the rate cases.

MR. EMEABA: All right, that's my questions at this time.

BY MR. STOLICKY:

Q. Okay, so with the plastic failure reports, I think we just talked about this, but do you track fusion failures? Just --

A. Yes. Well, it's whatever, you know, the AGI report and then you have the quarterly reports. So there's joint failures, there's fitting failures, and there's pipe failures, are the three categories on there.

Q. And is there any kind of root cause analysis done with each failure?

A. Not with each failure. The ones that are sent to the lab, and --

Q. And what -- at what point do you decide to send it to a lab?

A. That is the mechanic out in the field and the supervisor's call to make out in the field.

Q. Is there a procedure outlining that or is it just discretion?

A. Well, it's in the GIS form that when they -- when it says that it's a plastic failure, that is one of the questions in there: Did you send this to the lab, yes or no? So there is a prompt in there for them if they were going to send it to the lab.

Q. But there's not a criteria defined?

A. I am not sure if it is in the specs somewhere.

Q. Okay.

A. I would have to check on that.

Q. Okay. As far as threats to your system, do you -- and

this kind of piggybacks on the commission order from back in February, after the Horseheads incident with municipal infrastructure. Do you factor in water and sewer construction or pipelines near your gas system?

A. In our main replacement program, we have --

Q. In DIMP.

A. In DIMP? No, because that order has come out after we did our program evaluation. And I've been kind of waiting to also see what the result of this investigation is to know really how we might want to change our program.

Q. So your evaluation was done in April but it was only looking at 2013?

A. Correct.

Q. Because the order came out in February?

A. Um-hum.

Q. Okay.

MR. SINGH: So, so maybe I can interject on that note, two things. I guess one is should I be commenting on the order in this process and, two, is damage prevention captures that. We have a robust program around contractor oversight and public improvement projects for large city projects. We have actually physical oversight of that and we manage and track damage prevention associated with that, if it's possible. So from a damage prevention standpoint, that threat I think we address that in a number of ways. And we do replacements also in that process,

in advance of sometimes, or during large city projects to address those kinds of issues. So I think it's addressed within our overall damage prevention program, which is also part of DIMP.

MR. LUDWIGSEN: DIMP.

MR. STOLICKY: Yeah, I know we are still in that process.

MR. SINGH: Yeah, I just want to be careful that we don't cross lines here, right, because there's answers flying back and forth and I don't want to cross that line without making sure the right answers go to you and then we'll share that with the NTSB at the same time.

MR. STOLICKY: Understood.

MR. CHHATRE: Including backwards on this accident.

MR. SINGH: No, no, that's whether -- okay, the order is the order. I mean, I just share it, you know. The accident, you're right, it's first, the date of the accident. The order's a little bit different. That's an accident that happened in upstate New York, yeah.

BY MR. STOLICKY:

Q. And this may go down that same pathway, but have you made any changes or updates to your threat based on preliminary findings from Harlem, whether it be for plastic or cast iron?

A. Preliminary findings from what?

Q. From the Harlem incident.

A. Oh, Harlem. I have not -- still waiting on what the

test results were, so I really don't know what the root cause of the Harlem incident is yet. I have some theories, but I don't know anything definite. So no, I have not been able to take any action.

MR. STOLICKY: Okay. That's all.

MR. CHHATRE: Frank?

MR. McCARTON: Yeah, thanks, Ravi.

BY MR. McCARTON:

Q. So I have one question. It's Frank McCarton. Do you have any records of any failures from -- for sidewall fusions?

A. We, everything that we have -- you're saying sidewall. Then you're talking a service tee being attached to it?

Q. Um-hum.

A. Yeah, there is a handful of them out there, maybe six, I believe, something like that, since the 2009 data that we have.

Q. Okay.

A. Which is a very small percentage of the leaks that we do have or the repairs on plastic failures.

Q. Okay. Thank you.

MR. CHHATRE: Okay, Len?

BY MR. SINGH:

Q. Two things, I just want to -- this is Lenny Singh from Con Ed. Frank talked about failure and you said there are about six failures on tees. What are the modes of failures? Can you clarify or do you have details on that? Because a failure can be,

like, a range, right?

A. I am trying to remember some of them. There was a -- one or two of them, I believe, were cold fusion it was determined. Yeah, I'm not -- I can't really remember what some of the other ones were at this moment. I'm sorry.

MR. CHHATRE: If it is in the database, can you provide that to us?

MR. SINGH: Right.

MR. LUDWIGSEN: Yes.

MR. SINGH: So that will be in the database that you get.

MR. NICHOLSON: We'll see that, right. Yeah.

MR. LUDWIGSEN: That's what I was figuring.

BY MR. SINGH:

Q. The other question I have, Ravi had asked some things about soil and ground conditions. Are you familiar with the ZEI study that was done over the years that includes soil data?

A. Soil analysis, yes.

Q. Can you maybe talk a little bit of how that, how that's built into our main replacement program?

A. I'm somewhat familiar. I would not consider myself an expert on that. ZEI did a study. I think we got it in 2009 or 2010 and they did include the soil condition throughout our service territory. They did several soil samples throughout the area and they were using that to come up with some information on

what pipes that you should replace, based upon -- for both cast iron and -- I can't remember, was it also the bare steel?

Q. I believe so.

A. I think it was also in steel, but I know -- so that is, there is a whole listing of information that we have there as part of the ZEI study that does show some soil conditions. And those are incorporated as part of that main replacement program. The soil condition factor is in there, on when you're doing your risk scores for your -- risk scores on your corrosion for your bare steel.

MR. SINGH: Um-hum. So that's a very voluminous study. There's actually a smaller report. If you want, I can share that with you.

MR. CHHATRE: Yeah, that would be good.

MR. SINGH: That's all I have.

MR. CHHATRE: I'm (indiscernible).

BY MR. CHHATRE:

Q. Let me ask you a few clarification questions here for me. Just for the record, when did you, Con Edison, start using plastic pipes? Do you have that information?

A. Yeah, we started early 1972. There is a really nice chart in our DIMP program. If you pull that up, there's a chart showing where we used different plastic, which types of materials, which SDRs, all in there. It's, I believe, in Appendix A in there, so --

Q. Okay. So you believe 1972. Is that data from '72 to, I think, what, 2000- -- you gave me date, or year '11 or '12? Where is that data? Is that data captured in your DIMP study or it's still not --

A. What, pipes that we put into the ground?

Q. Well, no, any failures between '72 until the most --

A. We don't have failures from -- I mean, the only failures that we have are -- in the database are from 2009 on. But, I mean, the material could have been installed in '72, but it didn't fail until 2009 and on.

Q. I guess if there are any failures between '72 to 2009, where are -- where is that data? And I'm not saying there are failures, but if there are, how will you capture that in your DIMPs program?

A. Well, DIMPs, we only look at 6 years' worth of data, so we're not going back that far on there.

Q. Okay.

A. Yeah, 6 years of repairs, so --

Q. Okay.

A. But it, still, as I say, it could be installed back in '72.

Q. Okay.

MR. SINGH: So I think you're referring to this chart?

MR. LUDWIGSEN: Yes.

MR. SINGH: I can send this to you.

MR. CHHATRE: Okay.

MR. SINGH: It shows, you know, the different manufactured pipes that we used over the different decades.

BY MR. CHHATRE:

Q. Now, I was looking at if there is failure data between '72 and 2009, and if you have not considered that, maybe you might be missing some worthwhile information in your risk ranking is my -- why I was asking that question, is to -- I mean, I understand the logic for your 6 years --

A. Right.

Q. -- because there are two surveys involved. But that doesn't really lower or water down the previous data, the value of it.

A. But we have not seen any issues in the past 6 years in terms of plastic failures. I mean, well, our percentage-wise is very low. Our highest risks are still on our cast iron and bare steel, so that's where we are concentrating on. Not to say that a risk doesn't exist in there, it's just very, relatively low.

Q. Okay. And before 2009, did the previous data exist someplace that you guys can actually look?

A. There's paper forms --

Q. Paper trail.

A. And I'm not sure -- I only picked it up in 2009 and I know we've been sending -- they were entering information into a database that gets sent to the PSE. I don't have all that

information previously.

Q. Okay. Now with the ZEI study and, of course, the technicians filling in the form with the soil condition, so you do have data on soil conditions, per se, but it's still not factored in right now in your risk calculations?

A. Because it's not on the -- our maps aren't on a geographic system that we can be able to import that into it.

Q. The data is available, but it's not --

A. Right.

Q. -- entered in right now.

A. Because the way that our maps are right now, if you put -- the way the system is, the mains will not line up with the actual street addresses into a GIS system. I think some of them are around the Atlantic Ocean, I believe, so --

Q. You mentioned earlier that the failure, the root cause analysis data is entered into your system if the failure had been analyzed.

A. No, it's if the mechanic can determine what that is, it's entered in right there. And if they're not sure, they can send it to the labs to do a further analysis on that.

Q. Now the mechanics, are they qualified to analyze and make judgment as to what caused a failure?

A. I would believe so, but I don't know definitely on all of the qualifications on that.

Q. So for your DIMPs program, not every failure is required

to be analyzed to find the root cause?

A. Analysis by the lab, no; analysis by the mechanic or the supervisor, yes.

Q. So you are depending on the information coming from the mechanic as well as the lab?

A. Um-hum.

Q. Is it internal lab or outside lab?

A. Internal lab.

Q. And what are the qualifications of people? Are they degreed engineers or are they experienced in analyzing plastic failures?

A. I do not know all their training, you know, the operator qualification on that. I'm not involved with that training, so I don't know all the details on that.

MR. SINGH: So maybe I can help.

MR. CHHATRE: Okay.

MR. SINGH: The answer is yes to that. There are both technicians in the lab that qualified in fusing and there's engineers that oversee some of it. Ultimately there's a PE -- Ronnie Cartney (ph.) -- Joe Madia, you're going to talk to him later in the week. He ultimately signs off on all the reports.

BY MR. CHHATRE:

Q. So then going back, I'm still a little bit hung up with the technician making the decision. And you guys are basing your risk ranking based on the information coming to you.

A. Um-hum.

Q. You guys don't have a requirement that a person be qualified or an annual risk qualification to make sure the judgment given by the person is based on the proper training? What I heard so far in the morning, in the training, I didn't hear anything about a person being trained to analyze the failures. So I'm just trying --

MR. SINGH: The person are not trained to analyze. They're trained to report, right?

MR. CHHATRE: No, I thought that he said they report the cause of the failures.

MR. LUDWIGSEN: The failure.

MR. SINGH: What they found -- again, ultimately the technician in the lab, and now the lab report, ultimately says the mode of failure.

MR. CHHATRE: Right, correct. But not -- from what I understand is not every failure goes to the lab.

MR. LUDWIGSEN: No.

MR. SINGH: So if it's obvious it's a loose fitting, right, if it's obvious it's damage, right, that doesn't need to go to the lab for analysis.

MR. CHHATRE: Loose fitting is not failure, in my opinion.

MR. SINGH: No, it's a -- we consider that a failure. It's a leak.

MR. LUDWIGSEN: That is a failure. It's a leak.

MR. SINGH: It's a failure. It's a failure.

MR. CHHATRE: All right. Okay.

MR. SINGH: It's not meant to leak, right? If there's a damage, right? The question -- if it's a question of workmanship around a fuse or what have you, it'll go to the lab for some analysis to see if it's a cold fuse, was it a defective part or what have you, and then you'd --

MR. CHHATRE: Then it will go?

MR. SINGH: Right, correct.

MR. CHHATRE: And that's, that's all for me. Thank you so much.

MR. LUDWIGSEN: Okay.

BY MR. NICHOLSON:

Q. I've got follow-up. When we were talking about the plastic pipe age and some of it dating back to 1972, and I understand we've -- you've been on electronic since 2009, is age or installation date captured in this database we're requesting?

A. Installation date is captured in there, not to say that it's perfect, but it is in there.

Q. It's based generally on the material that you're looking at?

A. They tend to -- you know, they're assuming that it was installed when the service was installed.

Q. Oh, okay, I see.

A. But there are some cases where they didn't really pay attention and you'll have dates from 1940 in a few of the cases, when we were reviewing the data more recently, but -- so there are a few errors in that, that got through, got -- didn't get captured in my review.

Q. Okay.

A. Because that was probably, you know, partial services and they just look at what was in 1948, but then you had this section --

Q. Well, what's done in those cases to reconcile and get the actual date, then?

A. It's a best guess on that, because you don't really have --

Q. So you just leave it?

A. -- you don't have any information to know exactly what year it was installed, especially if a repair had gone in. You know, there's really no way of capturing that into the system.

Q. Okay.

A. You know, going forward we will know when these things are actually put into the ground.

Q. You mentioned that there was -- that there's a complete review and an annual evaluation of the DIMP program?

A. Um-hum.

Q. But I'm not sure I understood what the distinction between the two was. Can you elaborate on what complete and --

what are the differences between complete and annual?

A. The way that the framework is set up, that -- I'm trying to remember. There's -- you're still running the risk ranking of your things. You're still doing your evaluation of your trends over a 6-year trend, which we have -- I don't know, because I came after this, so -- because we changed our trend to a 3-year trend, but that occurred after this incident, so I don't have to -- you don't want me to discuss that?

Q. Nope.

A. But it doesn't require you to go through every single page and do all the updates of all the information on there. It's more just your higher level of your risks in there. You still have your subject matter experts do a review of the program results and come up with any additional factors that may be, any emerging factors. You still review all the PHMSA reports, any PSC reports, AGA reports, to make sure that you're capturing any other trends that are happening in the industry. It's just that you're not doing every little update of every page to make sure that, you know, you have everything there.

Q. So risk ranking is still evaluated?

A. Yes.

Q. Okay. And you mentioned that the framework was NGA and SGA. Is that similar to the GPTC --

A. No.

Q. -- guidelines? No? Different.

MR. STOLICKY: Do you incorporate GPTC guidelines and best practices?

MR. LUDWIGSEN: Can you give me an example? I mean, they're captured as part of our programs anyway, where we have public awareness where -- damage prevention. They're captured in that respect, so --

MR. STOLICKY: So you don't consider them when you develop --

MR. LUDWIGSEN: For subprograms, that's part of DIMP, so yes.

MR. STOLICKY: Okay.

BY MR. NICHOLSON:

Q. Okay, that helps. When the samples are sent out to the lab, and I understand it's your internal lab, how does that get back into your database? Or does it?

A. They send me a report. They'll e-mail me the report. And I have -- in my database now I have it so that I know when, which ones I'm still waiting for reports from.

Q. Okay. So when we get the database, we'll see which of these samples had been elected to be sent to the lab --

A. Um-hum, right.

Q. -- okay, for review? When you come across something -- you mentioned some fusion failures you had seen. One you mentioned, a cold weld, I think?

A. Cold fusion.

Q. Cold fusion. So what's done in that case, I mean, just from a risk perspective? Cold fusion, first off, what are we talking about? A low temperature joint?

A. I don't have the report in front of me to know exactly, so I --

Q. Well, in general, what would that --

A. Generally, usually the temperature wasn't brought up to the correct -- your heating temperature wasn't brought up there, so they didn't get -- you didn't get proper melt, so you didn't get a good joint in there.

Q. Okay. Is that one that would've gone to the lab for analysis?

A. Yes, the ones that -- the reports that we have are -- were lab analysis ones on those.

Q. Okay. So if you saw it, and you have seen that, what does that do from a risk perspective? What do you do with that information?

A. If there was a larger trend of those, then we would be doing more of an evaluation to see if that was a problem throughout our system or is it just an isolated case? So in these particular ones, it's only been a couple in a year. So, you know, we're talking six of them over the past -- well, I shouldn't say -- they're not all cold fusion, so we're just --

Q. Yeah.

A. So the instances of it has been very low, so no action

has been needed, we felt, at this point because there were still higher threats into our system. Now we're keeping an eye on it and seeing if, you know, there's an increasing trend in that. Then yes, we will be taking action on there.

Q. Okay. It's not cause to go back and look at the person that did the weld and start to evaluate other joints that person might have performed in the system or --

A. I am not aware of that being done.

Q. That's not something you would do?

A. I don't. I'm not the only person getting the lab reports, so I don't know if that -- you know, it's also going to the department, so maybe they were taking some action from that on their end. But I do not know of any.

Q. Okay. You mentioned the three districts that are DIMP. What are those?

A. Well, each division has different districts in there. Manhattan happens to have three. Queens is probably broken up into about six or eight different districts in there. Westchester is somewhat individual towns are the districts, but we have combined a few of them so that you are trying to get similar size miles of pipe in there so -- it was a little bit easier to do a comparison on your leaks per mile that way, so we did some grouping to come up with districts in Westchester.

Q. Okay.

A. And in the Bronx, there's probably about six different

districts in there. In the DIMP program there is a map in there that shows the different districts. And, you know, it's color coded in there for some different threats that we have, you know, corrosion on bare steel, and you'll see different color codes on there for the different districts, you know, red being the worst.

Q. So Manhattan has three districts?

A. Um-hum.

Q. What are they? Are they just 1, 2, 3, or are they --

A. The districts are 11, 12 and 13; 11, 12 and 13 is --

Q. Oh, okay.

A. Yeah.

Q. That's how we'll know those. And then I thought I heard you say then the risk was by the material, is broken down by material type as well.

A. Um-hum.

Q. So is there a risk score by threat for that material type?

A. Yeah, it would be threat, district, material type and then what your risk score is.

Q. So what are the threats on plastic pipe? I missed that.

A. They don't even show up on the top 100 of the list.

Q. Okay, what's evaluated?

A. Hmm?

Q. What are the threats? What are evaluated for plastic pipe? There's like nine for steel, aren't there usually? How

many are there for plastic?

A. I mean, your -- there's nine threats overall, I mean, but we do --

Q. Okay, so it's the same threats?

A. It's the same threats.

Q. Okay. And just throw them out there.

A. Because a tree root could be, you know, both on plastic or steel, which would be natural forces kind of a thing, so --

Q. Okay. What are the others? Natural forces --

A. So you have corrosion, natural forces, mechanical or weld failures, other outside forces, excavation damage. How many am I up to?

Q. One, two, three, four, five. So you'll still assess things like corrosion, regardless of the material type; it's just plastic goes --

A. Well, there shouldn't be any corrosion --

Q. -- to zero at that point.

A. Right.

Q. Okay.

A. Now occasionally you might see a corrosion failure with plastic, but that's because the service was steel but the fitting, you know, connecting -- so sometimes you get those little weird things.

Q. Yeah, yeah, mechanical coupling.

A. Right.

Q. Okay. And then under your consequences, I heard you say -- I wasn't totally clear. On your consequences, you had things like -- wasn't there mechanical or couplings in there?

A. It was loose fittings on high pressures, so it is our mechanical couplings. Anytime that, you know, a fitting wasn't tightened or it loosened up, then --

Q. That's a consequence, not a threat?

A. That is one of the consequence factors that we added into there. It is sort of both. It's -- well, it's a threat, but --

Q. Well, it's threat times -- or likelihood times consequence, right? Likelihood of a threat --

A. We're considering that as a consequence because we feel that we have certain areas that we know that are an issue so we wanted to make sure that our risk score was addressed in that, so we added a factor for that.

Q. So your consequence weights each of these four factors --

A. Yes.

Q. -- to get a combined consequence? Okay.

A. Correct.

Q. Okay, I think I understand now. Okay, so, and then consequence times likelihood gives you your overall risk score?

A. Risk score, um-hum.

Q. Okay.

A. Yeah, with the weighting factors that are involved with that.

Q. But which district of Manhattan are we talking about when we're talking about the failure in March?

A. I'm not sure. I'd have to look at the map. I'm not sure what it is right now.

Q. Okay. And so I'm trying to get a feel for that specific area what was the highest threat to plastic pipe or what's the highest risk rank for the plastic pipe in that area.

A. From the standpoint of DIMP, it's very -- it's not on the top 100, so --

Q. It doesn't even show up? That's good.

A. Right, right.

Q. So plastic's lumped in with all the other material types. It doesn't have its own subcategory --

A. No, it's its own category, but, like, when we were looking at the top 100 list --

Q. Oh, by district.

A. By district and threat cause category, it doesn't even show up in the top 100.

Q. So there -- I understand there was a cast iron replacement project on that street, at some point like 70 foot of cast iron was replaced to plastic. Was that something that came out of the DIMP program? Was that a risk that was identified on that street?

A. I don't know why that one came out.

MR. SINGH: That was an encroachment.

MR. LUDWIGSEN: Encroachment.

MR. SINGH: Meaning there was other work done there and jeopardized a main. Part of our procedure is to replace cast iron mains that are encroached.

MR. NICHOLSON: Okay.

MR. SINGH: You know, either undermined or in the angle of repose.

MR. STOLICKY: That is a regulation according --

MR. EMEABA: In DIMP, yeah.

MR. NICHOLSON: Okay.

MR. CHHATRE: Lenny, can I -- what is encroachment? What will happen?

MR. SINGH: Okay, so that means someone is digging in or around it, either under it or adjacent to it. So if it's within an angle of repose, you know, you have a 90-degree angle -- a 90-degree triangle along the depth and width, and you see -- if it's within that triangle, it's an encroachment and it needs to be replaced; if it's undermined, definitely being replaced. And we determine what points to go to based on the size of the trench, the nature of the work that's being performed in and around it.

MR. CHHATRE: And can you -- what was happening at that Park Avenue location that --

MR. SINGH: At the Park Avenue location I believe there

was a sewer and water service being put into 1642 that undermined and/or encroached upon the cast iron main.

MR. NICHOLSON: In what, 2009?

MR. SINGH: '11, 2011.

MR. NICHOLSON: 2011?

MR. SINGH: Um-hum.

MR. EMEABA: If I may throw it out to you, if it happened at 1642, okay, right, you made your replacement from the across 16th Street there, and which is southward, coming north.

MR. SINGH: Right.

MR. EMEABA: To, and then you add which is it that go past 1642 and ended just in front of 1644. So how come does it entail that length, since, if the encroachment were just in front of 1642, why didn't you just set up to probably the next building, which is 1640, and then end where you ended? How come did you have to go to --

MR. SINGH: There's a number of decisions. We can choose to replace the entire block.

MR. EMEABA: Yes.

MR. SINGH: We can do 5 feet, we can do 50 feet, we can do 100 feet. All right, we look at adjacent piping and we make some decisions that's economic. Sometimes it makes sense to do more because you're going to be digging there and the cost, you know, the major cost is digging. So we look at what other failures are along the line, what other components along the line,

and does it make sense to do that? It's not, you know, say, well, let's do 5 feet, let's do 10 feet. It's an engineering analysis of the pipe and we make a decision.

MR. EMEABA: Okay, so the, the engineering decision now tore this out instead of also going far down the north side? Okay. I have a --

MR. NICHOLSON: I wasn't --

MR. CHHATRE: Matt, do you want --

MR. NICHOLSON: I'm sorry. I just want to -- I got to get through these or I'll forget.

BY MR. NICHOLSON:

Q. But the -- I heard you mention something about impingement and water main breaks being included in the DIMP program. Can you elaborate on that? What was --

A. We had a couple of incidents in the Bronx where a water main break caused flooding into the cast iron main system, so we wanted to add that as one of our threat categories so that we know if -- you know, being able to track that into the future. Water main impingement we decided just to add on there because if, you know, a water main breaks and starts putting high pressure onto a pipe, you're going to get a hole in there.

Q. Does that happen? That sounds like a pretty far --

MR. SINGH: We've -- no, we had that actually once, many, many years ago. I believe it was on a transmission main where an impingement from a water main, water meter service that

actually created a hole in the transmission main.

MR. CHHATRE: And when was that?

MR. SINGH: Oh, probably mid-2000. Do you remember? Maybe before your time, before my time. I just know historically it's --

MR. NICHOLSON: In a steel transmission line, huh?

MR. SINGH: Steel, steel, mm-hmm.

MR. STOLICKY: Well, you get 40-plus pounds of water spraying sand --

MR. SINGH: Right. It's like a jet. It just sits there over time and puts a hole in it eventually and created a leak.

MR. CHHATRE: No, I'm trying to find out a time frame, because I think previous data was not included in the risk, but this one seems to be. So I'm trying to find out when was this incident?

MR. STOLICKY: There were, I believe, two incidents in Con Edison's territory, 2011 and 2012, where there were water main breaks.

MR. SINGH: Oh, the water main breaks. There was two major breaks --

MR. LUDWIGSEN: Main breaks.

MR. SINGH: -- right, in '12, two in -- was it '12? One in the Bronx and one in Manhattan --

MR. STOLICKY: '11 and '12 --

MR. SINGH: -- where we had large-scale flooding and

outages.

MR. STOLICKY: Tens of thousands of gallons of water from that.

MR. SINGH: Water in the system. But the water impingement, specifically --

MR. NICHOLSON: But that's your undermining.

MR. SINGH: No, that's just the water main broke, buckled the street and took everything with it. The water just rushed into the main.

MR. NICHOLSON: Okay.

MR. LUDWIGSEN: So now you have all these services that are flooded, so --

MR. NICHOLSON: That was pre -- so those things were pre-accident?

MR. SINGH: Yes.

MR. LUDWIGSEN: Um-hum.

BY MR. NICHOLSON:

Q. So that's a threat that would also be looked at for plastic then, right?

A. Yeah.

Q. Because they're all --

A. We just haven't had any occur since we've added these new cause codes.

MR. SINGH: It's much more -- your cast iron main is much more susceptible to a break than a -- I mean, a plastic will

probably hang, right, as opposed to a cast iron will just collapse.

BY MR. NICHOLSON:

Q. I see. What I'm failing to understand is your likelihood is based on repairs.

A. Right.

Q. So if it didn't show up in a repair, just because there's a water main running parallel to your --

A. Oh, right, if there's a repair.

Q. -- your line doesn't mean it's at risk for impeachment or undermining. So there has to have been a repair history.

A. Yeah, exactly.

MR. SINGH: Or just the fact that you have a low -- a small diameter cast iron main or an unprotected steel pipe, a small diameter and, you know, and where all the water mains are or water mains are in general, you know, you want to kind of -- we wanted to start to track and see that. And one of the things in the current rate case is a leak-prone pipe in flood zones, right, is one of the things we were looking at because, again, if there's a washout or what have you, you potentially could lose that pipe much easier. So one of the things we've considered over time is should we start to track water main breaks and historic water main breaks and is that -- do we see it as a significant issue or is it a one-off, right? Maybe 2012 was a bad year, you had two water main breaks, right? And if it becomes rampant, then we have to

address that in how we replace, how we prioritize water -- cast iron and bare steel pipe replacement, right? And maybe that becomes a priority as opposed to something else.

MR. CHHATRE: Tasos, would you have a record of those, what happened in those water main breaks?

MR. GEORGELIS: The two that they just discussed?

MR. CHHATRE: Right.

MR. GEORGELIS: So when we have failures, we do an analysis of the cause of failure.

MR. CHHATRE: I mean, I'll remind you, but in case I forget, just can you -- can we get a copy of that, those two reports?

MR. GEORGELIS: Can you give me the exact locations?

MR. SINGH: That was the one in the --

MR. GEORGELIS: I remember one was, like, on 150 --

MR. LUDWIGSEN: It was in Harlem.

MR. SINGH: That was the one in Harlem, right. Remember the one --

MR. GEORGELIS: Was it off St. Nicholas?

MR. SINGH: St. Nick, St. Nick --

MR. LUDWIGSEN: Tarlock can bring it with him.

MR. SINGH: -- and the other one Jerome Avenue.

UNIDENTIFIED SPEAKER: Yeah, Jerome Avenue --

MR. SINGH: It was Jerome Avenue? And then the subway. They were months apart.

MR. GEORGELIS: Okay. So you want the failure analysis for those two?

MR. CHHATRE: If we can, because Tarlock is coming in to talk to us.

MR. GEORGELIS: Yeah, Tarlock would have been the one, probably, who did the failure analysis. So we'll have him bring copies of his failure analysis for those two locations?

MR. CHHATRE: If you can give it to us before that, then we can have it -- we can look at it before --

MR. GEORGELIS: Okay. I've got to check the office, where they are.

MR. CHHATRE: -- so we can ask better questions for him.

MR. GEORGELIS: Now, I assume they've been completed, I don't know, because they're all in different phases.

MR. CHHATRE: With your format.

MR. GEORGELIS: Yeah.

MR. CHHATRE: I mean, we can, really incomplete formatting and just stamp "pre-review" or something like that, that'll work.

MR. GEORGELIS: Yeah.

MR. CHHATRE: I just need to find out what is happening there, that's all.

MR. STOLICKY: There was also one in Brooklyn during that time period, too. Could you add that one to the list? I can get you the rough date.

MR. GEORGELIS: So we have a lot of water main breaks. What happened in --

MR. STOLICKY: National Grid had to pump out over 40,000 gallons of water. It was a, it was a big break. I can get you the date.

MR. GEORGELIS: Get me the date. So, from what I remember, the one with National Grid, there was a -- we had a leak on, I think it was a steel pipe. And then they had a facility close by and he claimed that water was going in, but there was a question as to whether it was ours or theirs that was causing, that caused the leak. So I wasn't sure where that ended up. I don't know if it's the same one or not.

MR. STOLICKY: I'll get you the date. So Matt's follow-up question kind of dovetailed into a follow-up question I was going to ask --

MR. EMEABA: No, Matt wasn't finished, right?

MR. NICHOLSON: I'll be -- I'm just about done.

MR. CHHATRE: Let him finish.

MR. NICHOLSON: I'm going to end with just looking at Lenny and making sure we've got our data request. So we're going to -- we're going to see the database, the plastic failures database, we asked for that. And then there was mention of the supply, I called it -- it's a repair screen that they -- you know, the repair form that the guys in the field are filling out.

MR. SINGH: The plastic pipe failure report form.

MR. NICHOLSON: The plastic pipe failure report, thank you, that. We want to see --

MR. SINGH: The form.

MR. NICHOLSON: We want to see the form, we want to understand all the drop down choices that are available for the --

MR. LUDWIGSEN: Okay. Oh, you want to see the dropdowns, too. Okay.

MR. SINGH: So maybe, can we print it out on GIS and --

MR. NICHOLSON: It could be a screenshot.

MR. SINGH: -- screenshots and put a PDF?

MR. LUDWIGSEN: I'll figure something out. I may have to work with our IR and --

MR. NICHOLSON: That's fine. Even if it's, you know, get us a shot of the form and then you can just tell us what the dropdowns would be.

MR. LUDWIGSEN: Okay, because that I know I already have the list of values on there for those as a separate thing, but that actually --

MR. CHHATRE: It would be nice to have one blank and one filled form, so we know what the people fill in. If they have it.

MR. LUDWIGSEN: Well, probably I can only show you a filled-in form because the form isn't active unless --

MR. SINGH: It's a job.

MR. LUDWIGSEN: -- it's a repair on a plastic, then the form becomes active. Otherwise, they don't even see it.

MR. CHHATRE: Oh, okay. All right.

MR. NICHOLSON: And that's it. I just wanted to be sure those were captured. So thank you.

MR. SINGH: I believe you have a copy of the DIMP already, right? We gave -- we submitted that to you?

MR. NICHOLSON: Well, you said you gave us a copy of the DIMP, and I didn't make this request because I'm assuming it's in there, these risk rank --

MR. LUDWIGSEN: Yeah, the --

MR. NICHOLSON: We'll see the table for the 2013, I guess it would've been?

MR. LUDWIGSEN: 2012 data, because this --

MR. NICHOLSON: Oh, yeah, it would've been based on '12.

MR. LUDWIGSEN: Right, um-hum.

MR. NICHOLSON: '13 --

MR. LUDWIGSEN: Year-end 2012.

MR. NICHOLSON: Right. So we've already got that. I won't request it. Good.

MR. CHHATRE: Okay. Kelly?

BY MR. EMEABA:

Q. Yeah, I was -- I wanted also to ask some additional questions. We've talked about 2009. Is 2009 the year your plastic pipelines started failing or is that the year Con Edison started collecting information on plastic failures?

A. 2009 is when I started collecting the failures on

plastic fittings and changed how we did things, making it into a database, instead of it being a paper-based system.

Q. Okay, so that is when you started making the change?

A. Right. Um-hum.

Q. So prior to that, have you been collecting such information?

A. There are paper forms throughout the office on there, yes.

Q. Okay. Do you know of the committee called the PPDC?

A. Um-hum, we submit to that.

Q. Plastic pipeline database.

A. We submit our reports monthly to them.

Q. You do?

A. Yes.

Q. Currently?

A. Yes.

Q. Okay.

A. And I know we've been doing it, well, since I've been doing it in 2009. I don't know how much before that it was happening, so --

Q. Okay, do you have a current member or someone who is invited to attend?

A. On PPDC?

Q. Yes.

A. There are very few members that are actually part of

that committee that review the plastic failures. There's only like five. And some of them are industry, some of them are manufacturers -- users and manufacturers, so --

Q. Yes. Among the leaks of your plastic pipeline leaks that were identified, you mentioned at least about six from, you know -- do you know how many of them that are maybe within one-quarter miles of this area of the incident?

A. I am not 100 percent sure, but I would say that there wasn't any within the radius of there.

MR. SINGH: I thought we provided that during the on-site to you. You might have that, with the maps. Remember I gave you all the maps and all the data on that? So you might have that already.

MR. EMEABA: No, we're talking about the leaks --

MR. SINGH: Right.

MR. EMEABA: -- that were from --

MR. SINGH: Yeah, you had asked for a leak history within a quarter mile.

MR. EMEABA: Yes.

MR. SINGH: Right, and a half a mile, I think it was.

BY MR. EMEABA:

Q. Based on what information you have in your system, that's what I'm more interested --

A. You're talking plastic failures or --

Q. Yes, plastic failures and other.

A. But then you also said it was only of those six. Of those six, I don't recall any of them being in that area. I can look at it --

Q. Now you mentioned the fact, early on you answered that you know about six.

A. Six failures that were due to fusion-type failures for an operator error.

Q. Correct. That's what I'm asking, if any of them, how many of them are within that area?

A. I would say zero, but I would have to confirm it.

Q. Other than the one involving this incident?

A. I do not know of a failure analysis yet of that incident, so I don't know what the root cause is yet so I cannot answer that.

Q. All right, thank you.

A. I haven't seen any lab reports.

MR. SINGH: That was an unfair question. For the record, that was an unfair question. That's leading the witness, we call that, my friend.

MR. NICHOLSON: No, that's his job.

MR. SINGH: No, he's not -- he's just here as a moral support.

MR. EMEABA: Thank you.

MR. CHHATRE: Are you finished?

MR. EMEABA: Yeah.

BY MR. STOLICKY:

Q. My two follow-up questions have half been answered. Back to the PPDC database, plastic failure database, have they developed any consistent protocols yet or is it still just voluntary reporting of failures?

A. It is still voluntary, but -- I don't know the actual number, but they're close to like 90 percent of the mains in the U.S. are being captured by them.

Q. But it's a voluntary reporting? It's --

A. Voluntary.

Q. Okay. Next question revolved around the water main breaks, the big ones that were topics discussed in the rate case last year, along with the storm harming. But back to your risk model. When you're looking at material susceptible to water impingement, are you factoring in pressure? I mean low pressure versus high pressure?

A. In DIMP, we do not have a factor for pressure at this point. But for your -- I'm trying to remember the MRP. I'm not sure on MRP, if they actually include pressure in there or not. I know there's diameter and a few other things, but I'm not sure about pressure.

Q. My question's more focused on DIMP, because I think MRP would factor that, but -- if you have any type of flooding, no matter where the water's coming from, you have a high pressure pipe, you're less likely to get water in the pipe.

A. Right, right. Um-hum.
Q. I was just wondering if pressure was factored into your DIMP model.
A. Not into the DIMP model, no.
Q. Okay, all right.
A. But I consider MRP part of DIMP also, so --
Q. Okay, thank you.
MR. CHHATRE: Frank?
MR. McCARTON: No further questions.
MR. CHHATRE: Len?
MR. SINGH: I'm good.
MR. CHHATRE: Anybody have any questions?
MR. NICHOLSON: Yeah.
MR. CHHATRE: Go ahead.
BY MR. NICHOLSON:
Q. Well, first off, someone needs to define what was this voluntary database? You're calling it PPTC or --
A. Plastic pipe database --
MR. EMEABA: Plastic piping database committee.
MR. LUDWIGSEN: Committee.
MR. SINGH: That's AGA.
MR. LUDWIGSEN: It's an AGA-run committee that they collect monthly all the plastic failures.
MR. NICHOLSON: Okay, say --
MR. LUDWIGSEN: And then they do analysis of it and

submit a report out saying, you know, we've been seeing this type of a trend in the industry and, you know, you should take a look at that.

BY MR. NICHOLSON:

Q. One more time, what was, the acronym is what?

A. PPDC.

Q. And say that again, for the record.

A. PPDC --

MR. CHHATRE: No, no, what does it stand for?

MR. NICHOLSON: Spell it out, sorry.

MR. LUDWIGSEN: I'm sorry. Plastic pipe data committee.

MR. NICHOLSON: Okay.

MR. EMEABA: Plastic piping database committee.

MR. LUDWIGSEN: Okay, sorry.

MR. NICHOLSON: Database committee, okay. It's for the transcription, sorry.

MR. STOLICKY: And are company names associated with the failures or are they left off?

MR. LUDWIGSEN: They are not associated. So there is no record back to the company. It's all anonymous.

BY MR. NICHOLSON:

Q. Okay, so we talked a lot about DIMP, but I heard you say you're also over the public awareness program.

A. Yes.

Q. Okay, so can you just describe the Con Edison's public

awareness program, how it was framed and outlined and what it covers?

A. The public awareness program was developed through the Northeast Gas Association as a cooperative. They kind of came up with their own framework on there. The company has adopted their framework. We've been using that since -- I think the public awareness rule came into effect around 2006, but I'm not exactly sure on that, but somewhere around there.

And we've been working through the Northeast Gas Association to do year, 4-year effectiveness reviews. We've been doing some radio and TV commercials through them the past couple of years. I'm the chair currently of the NGA public awareness committee. So we've been meeting regularly. They discuss any issues that we had with our public awareness program.

You know, we just went through our 4-year effectiveness review for 2014. We had to have it completed by June, I believe. June 20th, I believe, is the date on that, so --

Q. Okay.

A. You know, since then we've been making some changes to, you know, this also -- and from the Harlem incident, on the communications, we've been sending out some brochures and some additional languages. We've been adding in there that things can be reported anonymous. I guess these are changes after the incident, so I guess you don't really want to delve into that, but --

Q. Well, while you're on that topic, because I've heard that there were changes post-accident. So okay, why don't you go ahead and talk to those. You said there were, what, additional brochures or what are --

A. We have -- our gas safety brochure right now is currently only in English and Spanish. They developed it into other languages, Chinese and, like --

MR. SINGH: Korean?

MR. LUDWIGSEN: I can't remember what the other one was, but --

BY MR. NICHOLSON:

Q. That came out of this accident?

A. Yes. We felt like we needed some additional languages in there. That is our gas safety information. And they also took the -- we had a video on our website that was done for gas leaks on there. And that was just done in English, so we developed a Spanish version for that also. You know, that's been on our site for a couple of years now, the English version of it.

We are required to do two mailings per year for our affected public. So our baseline requirements are met by our customer newsletter, where we have an article in there about, you know, meeting all the requirements of the public awareness program. In addition, we've been doing scratch and sniff bill insert. Some years we've also been doing a more comprehensive natural gas safety brochure, which covers carbon monoxide and some

additional areas in there that aren't required as part of public awareness.

Q. That goes out with the billings?

A. Those are in the billings.

Q. Okay.

A. Then we've been doing, with the NGA, the radio and television ads. We have a kids program, where we've partnered with DC Comics to do some electric, gas and steam safety comic books that go out there.

Q. Okay.

A. I have a Scholastic publishing, cooperation with them on some modules for energy safety, you know, and gas is one of the ones in there. We send out letters to all of our master meter buildings, so people who aren't -- who don't typically get a bill insert, we ask them to, you know, post these brochures on their bulletin boards so the people also -- the residents in there will have an opportunity to see what -- you know, these brochures.

Q. Do you look at that, the effectiveness of those programs, different than you would --

A. We consider that as a supplemental, just trying to reach out to the different areas as many ways as we possibly can.

Q. Okay.

A. Yeah, we also have, you know, the radio and TV commercials that we feel like are capturing the people that we may not capture with the master meter buildings.

Q. The radio and TV ads, do they play throughout these -- your service areas or are they --

A. Well, it's through the Northeast Gas Association.

Q. Okay.

A. So it's -- you know, we each contributed a set amount of money and they have a certain reach that they go through, but -- I don't have the actual numbers off the top of my head, but you know, we are covering the major radio stations in the area, some of the AM, some of the FM, and we're capturing most of the cable type shows.

Q. Okay.

A. You know, in prime time. We're not doing the 2 a.m. type morning slot, but --

Q. That was my next question, okay.

A. You know, part of the -- we do capture, you know, all the airing times of all that, so I do have that as -- you know, in my public awareness program.

I'm trying to think if I've missed something. Well, we have the website with, you know, the ad that we do -- or not the ad, the safety video on there. You know, we've been starting to investigate a little bit more in tweets and things like that and, you know, sending out some tweets saying, hey, about gas safety or, hey, take a look at this video.

Q. Okay. We had heard, or I had heard about an instance or a concern in this accident that the initial complaint of gas

smells had gone to Con Edison and not to 911. Was there specific guidance from Con Edison that gas leaks --

A. Our guidance is to call Con Edison first or 911.

Q. Or 911? That's post-accident?

A. Oh, let me see, I'm thinking, now -- yeah, right, we're adding 911. But we typically want them to call Con Edison first and then we have a whole system in there. Once the responder is on site, if they need additional resources from the fire department -- I don't know if they've already discussed code MRRE yet, or --

MR. SINGH: No. So there's an initiative with the city, right, looking at FDNY being part of a response to a gas leak. That's still in its infancy stages. There's nothing final on that. There's still discussion with the commission on that. Both the fire department and the city and Con Edison are working together to iron out procedures and call center protocols and what have you if we were to go that direction.

MR. NICHOLSON: Okay.

MR. SINGH: But we do have a sub-process called a code MRRE process.

MR. NICHOLSON: Called a what? I'm sorry.

MR. SINGH: Code MRRE process.

MR. NICHOLSON: Code MRRE, okay.

MR. LUDWIGSEN: Multi-unit --

MR. SINGH: Right.

MR. NICHOLSON: Oh, that's an acronym?
MR. SINGH: Right.
MR. LUDWIGSEN: Yeah.
MR. NICHOLSON: Okay.
MR. SINGH: So it's something that we developed over the years based on previous incidents where, based on certain triggers, we would notify the FD because they could probably get there much quicker than we can. They have some level of equipment and training where they can, you know, evacuate and make safe to get people out, not necessarily being, you know -- occasionally they do turn things off, whether it's a stove or what have you, maybe a service line on the inside. But that is something I think the city wants to work with us to enhance that.
MR. NICHOLSON: So code MRRE was in place prior to the accident?
MR. SINGH: Correct, correct.
MR. LUDWIGSEN: Yes.
MR. NICHOLSON: Okay, but --
MR. LUDWIGSEN: But it first requires a --
MR. NICHOLSON: -- what are the triggers, I guess?
MR. SINGH: There's a number of criterias. Off the top of my head --
MR. NICHOLSON: Well, this accident didn't trigger it.
MR. LUDWIGSEN: Because you didn't have -- first you have to have a technician go out on site, and then once he takes a

couple of measurements --

MR. NICHOLSON: Oh, okay.

MR. STOLICKY: Not always.

MR. SINGH: Not always.

MR. LUDWIGSEN: Not -- yeah, that's true.

MR. STOLICKY: It depends on the information on the call that comes in.

MR. SINGH: Correct.

MR. STOLICKY: And if it's a reliable --

MR. SINGH: Source.

MR. STOLICKY: -- reliable source, meaning a school superintendent or a public official or someone calls in a gas leak, that could be --

MR. SINGH: Right, so it's a reliable source first of all, right. So if we get multiple calls from the same block, if we get a report of an electric and a gas issue in the same block, right, those are some of the key triggers that we use to say, okay, you know what, we'd better get somebody there quicker. FD can get there faster, you know.

Damage, perhaps, you know, the contractor knocked off, you know, something off the main, damaged a main, we make those calls to, to the fire department. We have a direct line in our control center to say, hey, we need to dispatch a code MRRE and they'll send somebody out there. In the meantime, our responder is on their way, but chances are the FD will get there first.

MR. NICHOLSON: What is your response time, typically?

MR. SINGH: We do about, roughly, 90 percent in less than an hour, probably close to -- yeah, 95, almost --

MR. STOLICKY: They're running about 87 percent in 30 minutes.

MR. SINGH: Right, in 30 minutes.

MR. NICHOLSON: Okay.

MR. SINGH: And roughly, minimal, maybe one or two a year will go over the hour. We pride ourselves not to go over the hour. But close, like I said, close to 95-plus percent less than an hour and, as Chris mentioned, high 80 percent in 30 minutes.

MR. NICHOLSON: Okay, but the public awareness material always directed the consumer to go through --

MR. LUDWIGSEN: To call Con Ed.

MR. NICHOLSON: -- Con Ed?

MR. LUDWIGSEN: Um-hum.

MR. NICHOLSON: Okay.

MR. SINGH: I think we provided that stuff to Rick Downs, right?

MR. LUDWIGSEN: Yes.

MR. NICHOLSON: Yeah, that's where I've -- I've heard some of it.

MR. STOLICKY: I do have a question about the 911 initiative, and maybe you were already asked this. And some of the concerns that we've addressed in discussions is that if

someone calls 911, at what point in time is Con Edison notified of the gas leak?

MR. LUDWIGSEN: It's still ongoing at this point. I really don't have the details on that, on what's been agreed upon yet.

MR. STOLICKY: Okay.

MR. CHHATRE: Are you done, Matt?

MR. NICHOLSON: Yeah, go ahead. That's fine.

BY MR. EMEABA:

Q. On your days on your office, can you tell us a little bit about this customer piping?

A. Customer piping?

Q. Yeah, the --

A. You mean customer-owned piping?

Q. Customer-owned piping, yes.

A. That's --

MR. SINGH: I think you should defer that question to someone else. That's not for him.

MR. CHHATRE: Yeah, we have, we have a different session for that.

MR. SINGH: We have a standards guy, so --

MR. CHHATRE: We have a different session for that. Even public awareness, we have a different session for that, but because you are not listed --

MR. EMEABA: He's the one in charge of the public

awareness.

MR. NICHOLSON: Yeah, he's -- and you don't have anyone else listed. That's why I've tried to capture it here, actually.

MR. SINGH: Yeah, he can come back if you want, if you have somebody else, but I'm not --

MR. NICHOLSON: And that's worth doing.

MR. CHHATRE: Who do we have listed -- well, it's worth doing it. We'll do as many as we can accommodate.

MR. NICHOLSON: He doesn't have -- you know --

MR. CHHATRE: It's better, I guess, maybe --

MR. NICHOLSON: -- I didn't see another public awareness. That's why I'm --

MR. LUDWIGSEN: Yeah, I was kind of surprised.

MR. NICHOLSON: -- grab you.

MR. CHHATRE: Who do we have here? It's on Thursday, I believe.

MR. NICHOLSON: Why don't we go off record at this point?

MR. CHHATRE: Yes, we'll go off record.

(Off the record.)

(On the record.)

MR. CHHATRE: Any more follow-up of this --

BY MR. NICHOLSON:

Q. I would just say, I wanted to build off what Chris was just mentioning. He said, his question was about 911 and how they

notify Con Edison. That's a post-accident?

A. Yes.

MR. SINGH: Correct. That's an initiative that's still being discussed with the city.

MR. NICHOLSON: So was there a mechanism in place prior to the accident?

MR. SINGH: For us to call 911?

MR. NICHOLSON: Well, for FDNY to call you if they get a 911 notification.

MR. SINGH: I couldn't tell you off the top of my head. There is some protocol --

MR. McCARTON: If, if I may speak, may I speak of that?

MR. NICHOLSON: Yeah, Frank, go ahead.

MR. McCARTON: I believe the way that it is set up is once they confirm the incident by the fire dispatcher or from the arriving units, they will make a notification to Con Edison.

MR. STOLICKY: That's the way we understand the process.

MR. SINGH: Yeah, the hotline --

MR. McCARTON: That's what I'm -- the hotline will ring down --

MR. SINGH: Right.

MR. McCARTON -- to CIG, which is the central control desk, and they request Con Edison either on a rush or we have an odor of gas or we have news reports of an odor of gas. You know, it could be a minor leak in a hole, it could be a major leak, you

know, in the street.

MR. NICHOLSON: Sure. So they want personnel there first, before they make --

MR. McCARTON: Correct, before they confirm the leak.

MR. LUDWIGSEN: Um-hum.

BY MR. NICHOLSON:

Q. You mentioned the effectiveness review, which is conducted. It's a 4-year -- so it looks back 4 years? Is that --

A. Yeah. Well, no, it's due every 4 years, so it's based upon a survey that you do of --

MR. SINGH: I'm sorry, are we back on the record?

MR. NICHOLSON: Yeah, well, I didn't state it. Thank you. We are back on the record.

BY MR. NICHOLSON:

Q. So the question is the effectiveness reviews.

A. Okay, that's due every 4 years and it's based upon a survey that we started in December of 2013, continuing into 2014. I think it was like 4- or 500 surveys that we did in our particular region, and I asked a series of questions on there about a public awareness program: Do you know how to detect a gas leak? Do you know what to do?

You know, there was also other surveys for your emergency officials, your public officials and your excavators. And they have, you know, a different number of surveys were done for each of those.

Q. You did those or NGA did that?

A. We had hired Structural -- no, I'm sorry, the Center for Research, which has now been called Great Blue. They've been doing our surveys for -- they did our baseline back in 2006. We did our first one in 2010, and we also used them for this 2014 one. They also do surveys for us for the effectiveness of our radio and TV commercials.

Q. Okay. And this is a phone survey or mailing?

A. In the past it's been a phone survey and this year they've started with some new technology and also doing some e-mails. E-mails would be a web-type survey that you could go in and enter the information that way.

Q. Okay. So have we requested copies of those already?

MR. NICHOLSON: Do you know, Lenny?

MR. SINGH: John was the person that --

MR. LUDWIGSEN: Well, the survey would be after the --

MR. SINGH: Yeah, after the incident.

MR. LUDWIGSEN: -- incident. So that would not have been included in the package that I previously sent.

MR. SINGH: Do you want that? The effectiveness, latest effectiveness survey?

MR. NICHOLSON: I wanted -- I would ask for all three: '6, '10 and '14, is what I was going to ask for.

MR. CHHATRE: It's not that we are not interested in post-accident. We just want you to identify the item is post-

accident; otherwise, we assume it was pre-accident.

MR. SINGH: Well, remember the effectiveness is around the same time, right. It's based on -- it's probably a little bit more elevated, as opposed to the past, so --

MR. NICHOLSON: Well, that, that last one --

MR. LUDWIGSEN: Well, the surveys in our area were done before the incident.

MR. NICHOLSON: Right, you said December 2013.

MR. LUDWIGSEN: Right.

MR. SINGH: Well, the reports -- you're right. The reports came out, I'm sorry --

MR. LUDWIGSEN: Yeah. The reports came out, you know, in April, by the time they got all the different areas throughout the Northeast done and the reports issued.

MR. SINGH: Right. So the only thing we have to do on that is check with NGA on proprietary and what have you before we, you know, stamp anything and send it off to you, right.

MR. CHHATRE: That would be nice.

MR. NICHOLSON: Proprietary? What would be proprietary?

MR. SINGH: Well, it's industry data, right, based on different companies. I know we can't just share information. You know, it's a membership privilege to be able to have that information, so --

MR. LUDWIGSEN: And then have that go on public record.

MR. SINGH: And if it's going to go in a public docket,

I mean, my friend here, Ravi, reminds me all the time I can't just stamp everything confidential and proprietary.

MR. EMEABA: And it's not on the Internet in any form?

MR. SINGH: Not to my knowledge. We can -- well, that's what we'll check. We'll check with NGA.

MR. LUDWIGSEN: It's on my intranet site, but not on the Internet site, so --

MR. SINGH: We have it internally. We'll check with NGA on proprietary before we --

MR. NICHOLSON: That's fine. Do what you need to do. That's fair.

MR. SINGH: -- declassify that.

MR. NICHOLSON: Yeah, make that a request.

BY MR. NICHOLSON:

Q. And then, I don't know if it's been requested or not, I apologize, but do we -- have we gotten confirmation that mailings were sent to these tenants, 1644 and 46?

A. They receive a bill, so it was individual meters --

Q. Billing statements about the -- twice a year.

A. They receive a bill --

Q. Oh, that would go out in the --

A. So, right, they would receive the bill inserts, at least twice a year.

Q. Well, I would request that we get confirmation that they're in your mailing database and that they were sent this

materials.

MR. SINGH: 1644 and 46?

MR. NICHOLSON: Yeah, if I've got those addresses correct, yeah.

MR. LUDWIGSEN: Okay.

MR. STOLICKY: And 42.

MR. GEORGELIS: Can I ask a question real --

MR. CHHATRE: It may be in the billing, but we want to make sure that their addresses are in your database.

MR. NICHOLSON: They're correct and --

MR. SINGH: Yeah, I think their apartments -- their meter number is associated with them, so we should have --

MR. LUDWIGSEN: We should have the meter numbers where they have the bill, so they would've gotten it, but --

MR. GEORGELIS: If I recall, if I may ask a question, I recall that there were multiple meters in all those buildings, right? It wasn't one set of --

MR. LUDWIGSEN: Yes. Right.

MR. SINGH: So -- sorry, every meter should have a bill associated. You want to make sure those months where the inserts were there, they got a bill that month, right?

MR. NICHOLSON: Yeah. I want to know that they're captured in your database, those mailings, it's up-to-date, you've got the right address and the right names.

MR. STOLICKY: Does Con Ed bill monthly or bimonthly?

MR. SINGH: Monthly. So what I'll do, I'll get you the bills and the names associated with those bills for every apartment for the meter in that premises, the gas meter.

MR. NICHOLSON: Yeah. I mean, do you keep your own database for public awareness or is it just rolled into the --

MR. SINGH: The corporate, it's the corporate.

MR. LUDWIGSEN: For -- yeah, I mean, I don't have a database of all the individual -- like the addresses of where everything goes, that's just corporate there. Because we -- our public awareness program isn't just our gas customers; it's our gas and electric customers. So if they're electric only, they're still going to be receiving this bill insert because, you know, there's still gas out on the street; they really should know gas safety. So we send it to all 3.3 million electric and gas customers.

MR. NICHOLSON: One mailing with information on both electric and gas safety?

MR. LUDWIGSEN: Well, no, it's just the gas safety. Well, I mean, there is electric safety in those -- in the customer newsletters also.

MR. NICHOLSON: Okay, but mostly gas.

MR. SINGH: So we don't just send it to the gas customers.

MR. LUDWIGSEN: Right.

MR. NICHOLSON: I understand.

MR. SINGH: We send it to all our customers, whether they're gas or not. And I think over the years we've even included people outside of our territory, whether they're an electric customer and not a gas customer.

MR. LUDWIGSEN: Right. Like Staten Island is -- we only have electric there, but we still send them this bill, or still send them the customer newsletter.

BY MR. NICHOLSON:

Q. What were the effectiveness numbers most recently, do you know, as far as awareness?

A. That's, I mean, that's a hard one to answer because there's so many different questions and how you want to look at it. The effectiveness evaluation would be a much better way of looking at that.

Q. Okay. And then as far as awareness to emergency responders, how is that connected?

A. From the standpoint of the emergency responders, because, remember, it's done based upon the New York area -- you know, it's kind of a region, is the responses. So something can be skewed by somebody, say, you know -- Central Hudson I believe is in our area. So some of their, you know, emergency responders numbers are also included in there, so it could skew that on there.

So there were some improvements that still could be done on the emergency officials on the recognition, but I feel like

here in New York City, we have a really good program in there. We do a lot of additional training involved in there. We go to -- through the training in the fire departments and the police departments. We actually go in and do a module on energy safety. We do drills. We've developed a --

Q. Who does that? Is that through your training department or who does that training? Is it a third party?

A. That was through our gas emergency response center. It was Matt who did that --

MR. SINGH: Which, which one are we talking about here?

MR. LUDWIGSEN: Well, the one video I'm thinking of is the 1040 Code 1.

MR. SINGH: Oh yeah, that's a combination of, you know, something we worked out many years ago with the FDNY, our gas group, emergency response group, which is part of gas operations in conjunction with FDNY. And that's something the city uses as part of their training.

MR. NICHOLSON: Okay, so it's your emergency response operations people going out to visit local fire stations?

MR. LUDWIGSEN: Right. Um-hum.

MR. SINGH: Yes.

MR. LUDWIGSEN: Well, fire stations or going into the training facilities, also.

BY MR. NICHOLSON:

Q. Okay. And what do they -- is it just this is what you

do when you smell it or does it talk about your operations center, your control center, who to call, what kind of information they're going to need?

MR. SINGH: I think all of the above.

MR. NICHOLSON: Okay.

MR. SINGH: We do a myriad, depending on what they're looking for. We go to fire stations. We meet with the local chiefs. We go down to -- they come to our training facility. They get a feel for what we do. We work with the -- in Westchester we go to the fire academies, you know, meet with new recruits and we talk. I mean, there's different stages of training, or education mostly.

MR. NICHOLSON: How often is that done?

MR. SINGH: It's mostly on an as-needed basis when there's, like I said, new classes; they get part of it. The FD requests it, there's some new folks they want to come out and see or we go out. But we try to make it an active, you know --

MR. LUDWIGSEN: Right. I don't know the actual number, but if you look in one of the appendixes of the public awareness under emergency officials, there is a whole listing in there of all the visits that they have made. It is all captured in there.

BY MR. NICHOLSON:

Q. Okay, that was something I was going to ask. All right. That's in the PA plan?

A. Public awareness, yeah.

Q. Do we have that?

A. Yes, you do.

Q. I assume we have that. Okay, okay. I think I'll stop there on public awareness. If we want to pick it up again Thursday, we can.

MR. CHHATRE: Any questions?

MR. EMEABA: Not much. I reviewed these previous. As I asked earlier and I did not define what you call a hazardous leak. But my other question is did you people ever consider incorporating the GPTC guide also for gas leak classifications?

MR. LUDWIGSEN: That's not my area of expertise on that.

MR. SINGH: When our standards person comes --

MR. NICHOLSON: He's DIMP.

MR. EMEABA: Okay, thank you.

MR. LUDWIGSEN: You need the leak survey people.

MR. SINGH: Yes, they're the ones, or our standards --

MR. EMEABA: I'm okay. Thank you.

MR. LUDWIGSEN: But, I mean, what I consider hazardous leak is Type 1's, and I think that's mentioned on there. So that's what I include as when I'm doing my analysis, is Type 1's.

MR. EMEABA: Thank you.

BY MR. NICHOLSON:

Q. Well, wait just one second, though. Your analysis as far as risk?

A. Risk. One of the consequence factors is hazardous

leaks, so that would be the Type 1 risk.

Q. So you don't look at all leaks. You only look at --

A. No, that is an additional consequence, if we're seeing a higher than number -- higher than normal hazardous leaks in a particular area, that is going to get a higher risk ranking in there.

MR. STOLICKY: So you end up with multiple 2's and 2A's. Could that add up to equal a Type 1?

MR. LUDWIGSEN: Well, if you already have your frequency of failures in there, so you already know that you have --

MR. SINGH: Lots of leaks, right.

MR. LUDWIGSEN: -- leaks in this area. Now how many are hazardous will bump that area up.

BY MR. NICHOLSON:

Q. So it's a separate category almost?

A. Yes, yes.

Q. You look at all leaks.

A. All leaks, and then --

Q. Number of hazardous is a, a bigger score somewhere else.

A. Yeah. Um-hum.

Q. Okay. Okay, thanks.

MR. CHHATRE: Questions for you?

MR. EMEABA: No, sir.

BY MR. CHHATRE:

Q. A couple of questions on public awareness. What is your

matrix to see your public awareness program is improving, not improving? How do you evaluate yourself?

A. Well, annually we have our quality assurance department come in and do an audit of our public awareness program. We've had PSE come in so far and have evaluated it once. They didn't have any -- I can't remember if it was findings or recommendations. There were a couple of things that we needed to make some changes in, in our program.

And then we do have the effectiveness evaluation, too, that helps us, you know, what things that we should be changing in there. Plus, our meetings through the Northeast Gas Association and talking about what's been going on with the regulators in the other areas and what topics have been coming up. And we make changes based upon that.

Q. Well, I'm still missing the matrix. What is the thermometer that this year our public awareness program improved compared to last year?

A. That would be the -- we don't do it on an annual basis. It's every 4 years.

Q. Okay.

A. And that's as the code requires it to be done every 4 years.

Q. And what is your matrix? How do you measure or what are your thermometers for saying our program has improved in the last 4 years?

A. That's part of that 4-year survey results in there. So it breaks it down between the different stakeholder audiences. So if you're looking at the affected public, you know, between 2010 and 2014 has your numbers increased or decreased? And we have several different categories on there: Did they know how to recognize a leak? Did they know how to respond to it? Would they take action?

So there's all different questions in there. In the survey, there's a summary in there that shows all these different numbers on a nice little chart on that, so --

Q. Now any changes made in your public awareness program since the accident?

A. Yes, there was a lot of the changes and we've touched on a number of them already, so it was the --

Q. Calling 911.

A. We've added that, calling 911; that it can be an anonymous call, because there has been some concerns that people don't feel like they can call because their landlords tell them not to call or they're illegal alien and they're -- that's been some of the issues that have come up. So we started to stress that. You know, I said we added some additional languages. They did a lot of radio and TV commercials after the fact also.

Q. Okay.

A. I probably did an additional one in a customer newsletter. I believe we've also added in there some of this

information.

Q. For the record, can you tell us how the public awareness group is structured in Con Edison?

A. Well, Lenny is the, Lenny Singh is the program administrator in there. And each of the four stakeholders has somebody who is in charge of it. So from --

Q. Who are the stakeholders?

A. So the stakeholders for affected public would be customer affairs, I believe. For excavators, it's your construction management group. For emergency officials, it is our public affairs group. And who am I missing? Who did I forget?

MR. SINGH: Media.

MR. LUDWIGSEN: Well, affected public, emergency --

MR. SINGH: Customer ops. You got customer ops?

MR. LUDWIGSEN: Yeah.

BY MR. CHHATRE:

Q. You can tell me later. If you don't remember, I don't want to guess. You can just get it back through -- a little later. That's fine.

A. You know, it's all in the public awareness program of who's responsible for what areas on there and what they have to send.

Q. And where do you fit in?

A. I am his right hand man on this.

MR. SINGH: He's my -- he's the person working for me.

MR. CHHATRE: So he works on public awareness for you and these four people, four stakeholders, their contact people report to you or --

MR. SINGH: No, different organizations.

MR. LUDWIGSEN: Different organizations, so let's see --

BY MR. CHHATRE:

Q. How do you coordinate with them?

A. Well, we have meetings on there, discussing what a public awareness program is. You know, sometimes it's a group meeting. Usually it's a more one-on-one type of a thing, saying that we --

Q. What is the structure for that? I guess my question is, is there a document or guideline that says, okay, every 3 months you shall meet these stakeholders or every month or --

A. The public awareness --

Q. On your documentation, would be --

A. Well, the -- everything is in that public awareness program document on who's responsible for what when. And I'm there to make sure that everything gets done on -- when it's supposed to be done and that it includes all the required messages and the required frequencies.

Q. You meet with them, don't you?

A. Yeah.

Q. And how often?

A. I meet with them when the -- you know, like, for public

officials it's only every 3 years that is required. So theirs are a little -- you don't have to meet with them as frequently, but for emergency officials, that's annually. So right now I'm talking with them because we're coming up with a new letter for this year. You know, whenever we're doing the excavator mailing, which is on an annual basis, you know, I've worked with the person that's there and come up with a new mailing and how we're going to handle it.

Q. And your brochure says, program says to call Con Edison first if you smell gas?

A. Um-hum.

Q. Are there instructions given not to call 911 when somebody calls your call center to report gas odor? Now is the call center told not to call 911? Are there explicit orders to tell them to call 911?

A. Our public, the public awareness program tells everybody to call Con Edison, at 1-800-75-CONED.

Q. Okay.

A. And then depending upon the situation, if there's a leak, you know, how it would be handled, if a code MRRE will be called or not.

Q. And can you elaborate the reason for that decision, the logic for that?

A. Of why we're only having Con Ed?

Q. Call you guys.

A. I know it's been an issue in some of the smaller towns that really the police and fire department don't want to be involved in your -- in the calls for gas leaks. They feel it is a gas company responsibility. I've even heard of some companies, police departments charging the companies, gas utilities, for the calls.

Q. Has the City of New York told you, Con Edison, that they wouldn't want to respond?

A. No, not in New York City. I don't know all the towns in Westchester and how they've been handling it themselves.

MR. SINGH: So the issue is that the operator has a responsibility for addressing emergency calls, right, when it comes to gas leaks. So it's always been call the company, call the operator, call the local distribution company.

I think over the years we've made some enhancements when we get those calls. I mean, the city gets calls sometimes before us, because people naturally, you know, for whatever reason they call 911. And as Frank mentioned, it gets to us at some point in the transition that they've confirmed the gas leak, they'll report to us.

MR. CHHATRE: That's -- I understand that.

MR. SINGH: Right.

MR. CHHATRE: But my question wasn't that. My question was a very simple question, yes or no. Did the city contact Con Edison telling them that your public -- you should not be asking

your customers to contact 911? It was very simple, yes or no. Did the city tell you guys that we don't want to get involved; it's your gas, you are responsible?

MR. LUDWIGSEN: The city has not said that to us, no.

MR. SINGH: Not to our knowledge.

MR. CHHATRE: Okay. So it's your -- it's really your decision asking people to call Con Edison first. Not, had no bearing on city or police or fire department not wanting them.

MR. SINGH: It's our responsibility. It's always been our --

MR. LUDWIGSEN: Yeah.

BY MR. CHHATRE:

Q. And I understand. But I want to make sure that the city -- I mean, I think you mentioned some of those people, the city or police doesn't want to get involved and --

A. Well, I'm talking about the Northeast Gas Association, from that standpoint. And that's why in the industry-wide, it hasn't always been 911 first.

Q. And then a follow-up to that, I think, if I remember my information correctly that I read, the person who takes that call, gas odor call, and dispatches the person, the public awareness -- at what time, and these are borderline communities that respond, but does the public awareness group tell the person taking the call not to call 911?

A. No, we never say not to call the 911. They have the

option always of calling 911.

Q. Do they know that?

MR. SINGH: So this -- so you will get a chance to interview the --

MR. CHHATRE: No, I understand.

MR. SINGH: -- but there's a script that they follow prescribing -- they can't just veer from the script.

MR. CHHATRE: Okay, okay, sure, okay.

MR. SINGH: But there's a script that says ask these questions and you make certain decisions based on the answers you get.

MR. CHHATRE: I understand.

MR. SINGH: And I'm not an expert on that, but certainly those folks --

MR. CHHATRE: But that did not come from public awareness is what I'm asking. That's all I'm asking. That script that you've developed for that person who takes the phone call, did that script come from you or did you have a chance to review the script?

MR. SINGH: So that's a -- I don't believe it's a direct -- it's a bunch of organizations. We have call center folks, our customer ops folks, gas operations, the legal folks, right, everybody gets together and reviews the script.

MR. CHHATRE: I understand. But is public awareness part of that? That's all I'm asking. You're answering in 10

different ways, but you are not answering my question. Is public awareness part of that --

MR. SINGH: Developing the script?

MR. CHHATRE: Yes.

MR. SINGH: No, John doesn't -- no.

MR. LUDWIGSEN: Yeah.

MR. CHHATRE: Okay. That's all, that's all.

MR. SINGH: We don't develop the script.

MR. STOLICKY: Ravi, there's two things I'd like to interject here with what you're asking. One, the commission, commission's position is to have the utility operator at a gas leak scene as fast as possible because they are the most qualified to handle the situation. Fire department are very competent and qualified people, but they may or may not have the right equipment and calibrated equipment necessary, the tools to handle the situation.

MR. CHHATRE: Can I stop you right there. This is based on what? That they may not have trained people or they may not have equipment is based on what? Did the fire department in New York City --

MR. STOLICKY: The most qualified person to handle a gas emergency is the gas company.

UNIDENTIFIED SPEAKER: I think you need to ask the fire department that question.

MR. CHHATRE: Okay.

UNIDENTIFIED SPEAKER: And I think you need to ask the fire department that question and you need to ask the --

MR. CHHATRE: No, I understand --

MR. STOLICKY: Well, this isn't targeted at FDNY. This is a generic across the states.

MR. CHHATRE: Okay.

MR. STOLICKY: The FDNY is definitely at a much higher level and qualified --

UNIDENTIFIED SPEAKER: Well, say that. But say that for the record, then.

MR. STOLICKY: This is generic across the states. Second, as far as 911 goes, the way I understand how things came about back in June is that the city came out and said, we want you to call 911. They didn't go to Con Edison. They basically went to the public and said, you call 911 if you smell gas.

MR. LUDWIGSEN: And that's just --

MR. STOLICKY: It's not your question of -- how did you ask it -- did Con Edison, what was it, tell people yes or no call 911. The city came out and said, we want you to call 911.

MR. CHHATRE: I understand. But --

MR. STOLICKY: They told, they told Con Ed that.

MR. CHHATRE: What I'm asking is the commission wants the operator to be responsible and I understand that part. There's no dispute on that. But if the commission has taken a position that the public awareness program for all operators, not

just Con Edison, should ask the customers to call them first and not 911. Is that --

MR. STOLICKY: No.

MR. CHHATRE: -- the commission's position?

MR. STOLICKY: No.

MR. CHHATRE: Okay, that's all I want to know. Okay.

MR. SINGH: You've got to remember, outside of New York City, which is --

MR. CHHATRE: That's why I'm asking --

MR. SINGH: Yeah, it's a little bit different.

MR. CHHATRE: -- they deal with the entire state, not just Con Edison.

MR. SINGH: Right. You know, even in our territory, outside of the city you have volunteer fire departments that don't have that level of training and equipment that we've had with the FDNY over many, many years.

MR. CHHATRE: Volunteer fire departments are the most prevalent form of fire department --

MR. SINGH: In the country, yes, absolutely.

MR. LUDWIGSEN: And the city also asked them to call 311, which is the general information number --

MR. NICHOLSON: Oh, I wanted to ask about that, too. I mean --

MR. LUDWIGSEN: We're like, no, no, no, because that's just going to delay everything in there, so --

MR. SINGH: So there's a team between the city and Con Edison that's working on both --

MR. NICHOLSON: Now, but prior to the accident it was all just disconnect and disjointed, or?

MR. SINGH: Well, no, no. Like I said, we've had the code MRRE process, right. Now and the city had a process, when they get -- receive a call through 911 how they handle it.

MR. NICHOLSON: That's 911. What about 311?

MR. CHHATRE: No, my question --

MR. SINGH: I guess the same thing.

MR. LUDWIGSEN: The same thing.

MR. NICHOLSON: Okay.

MR. SINGH: Same thing. They have a process, right?

BY MR. CHHATRE:

Q. I guess from a public awareness viewpoint, are you guys contacting the 311 call center saying if you get a call for gas, either you call us or have the person call Con Edison. Has that been done?

A. You would have to talk with the people in the emergency management on that part of it.

Q. No, but you are public awareness, right.

A. Right, But he handles that part of the public awareness program, the interactions with emergency officials.

MR. SINGH: Right.

MR. CHHATRE: Okay.

MR. LUDWIGSEN: I'm just kind of the coordinator overhead. He knows all the details in general. I know all the mailings and everything else that go out.

MR. NICHOLSON: Who's he?

MR. LUDWIGSEN: I guess it would be Kevin Fagan would be a good person or --

MR. CHHATRE: Yeah, okay.

MR. LUDWIGSEN: Ginardo, Gino --

MR. CHHATRE: All right. Okay, that's --

MR. SINGH: Yeah, Fagan --

MR. LUDWIGSEN: Fagan would be --

MR. CHHATRE: That's all for me, thanks.

MR. LUDWIGSEN: Okay.

MR. CHHATRE: If not -- thank you so much. Off the record.

(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	NATURAL GAS DISTRIBUTION PIPELINE LEAK AND MULTISTORY STRUCTURE EXPLOSION IN HARLEM, NEW YORK MARCH 12, 2014 Interview of John Ludwigsen
DOCKET NUMBER:	DCA-14-MP-002
PLACE:	New York, New York
DATE:	August 4, 2014

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.

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Emily S. Howard
Transcriber