UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
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ENBRIDGE - LINE 6B RUPTURE IN MARSHALL, MICHIGAN	*	Docket No.: DCA-10-MP-007

Interview of: SCOTT McEACHERN

Crowne Plaza Hotel
Edmonton, Alberta
Canada

Monday,
November 14, 2011

The above-captioned matter convened, pursuant to notice.

BEFORE: MATTHEW NICHOLSON
Investigator-in-Charge

APPEARANCES:

MATTHEW NICHOLSON, Investigator-in-Charge
Office of Railroad, Pipeline, and
Hazardous Materials Investigations
y Board

[redacted]

BARRY STRAUCH, Accident Investigator
National Transportation Safety Board

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BRIAN PIERZINA, Accident Investigator
Pipeline and Hazardous Materials Safety
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Accide ons
P

[redacted]

JAY JOHNSON, Supervisor
Audits and Inspections
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[redacted]

I N D E X

I N T E R V I E W

MR. NICHOLSON: This is NTSB pipeline case number DCA-10-MP-007, Enbridge Energy July 2010 crude oil release in Marshall, Michigan. These are the Human Factors Group interviews being conducted at the Crowne Plaza Hotel in Edmonton, Alberta, Canada. Today is Monday, November 14th, 2011.

This interview is being recorded for transcription at a later date. Copies of the transcripts will be provided to the parties and the witness for review once completed.

For the record, Scott, please state your full name with spelling, employer's name and job title.

MR. McEACHERN: My name is Scott Allan McEachern. Scott is spelled S-C-O-T-T; Allan, A-L-L-A-N; McEachern, M-C-E-A-C-H-E-R-N. I'm based in [redacted] with Enbridge. My job title is director, safety culture.

MR. NICHOLSON: Okay. And, for the record, please provide a contact phone number and e-mail address that you can be reached at.

MR. McEACHERN: The phone number would be [redacted]. I'll also give you a cell number, [redacted] The e-mail is [redacted].

MR. NICHOLSON: Scott, you are allowed to have one other person of your choice present during this interview. This other person can be an attorney, friend, family member, a co-worker or nobody at all. If you would, please indicate whom you have chosen

to be present with you during this interview.

MR. McEACHERN: No one at all.

MR. NICHOLSON: Okay. All right. We'll go around the room now and have each person introduce themselves for the record. Please include your name with spelling, your employer's name and contact phone number and e-mail address. I will start and we'll progress clockwise starting from our left.

Matthew Nicholson, NTSB. That's spelled M-A-T-T-H-E-W, N-I-C-H-O-L-S-O-N. I may be reached at [redacted] My phone number is [redacted].

MR. PIERZINA: I'm Brian Pierzina with the Pipeline and Hazardous Material Safety Administration, abbreviated PHMSA. The spelling is B-R-I-A-N, P-I-E-R-Z-I-N-A, and my e-mail is [redacted] And my office phone number is [redacted]

MR. JOHNSON: Jay Johnson, Enbridge Pipeline, [redacted] Contact information, [redacted] Cell phone, [redacted]. E-mail is [redacted]

MS. BUTLER: Karen Butler, K-A-R-E-N, B-U-T-L-E-R. The e-mail address is [redacted]. I'm representing PHMSA, P-H-M-S-A. My official title is supervisor of accident investigations [redacted].

MR. NICHOLSON: Okay. So, Scott, to begin with -- oh, I'm sorry, Barry.

MR. STRAUCH: I'm Barry Strauch with the NTSB. That's B-A-R-R-Y, S-T-R-A-U-C-H. My e-mail address is [redacted] and my phone number is [redacted]

MR. PIERZINA: And, Matt, I forgot to mention that I'm [redacted]. This is Brian Pierzina.

INTERVIEW OF SCOTT McEACHERN

BY MR. NICHOLSON:

Q. All right, Scott. To begin with, I thought maybe we'd just start with sort of a narrative from you. If you could, could you just give us some background about how long you've been with Enbridge, positions you've held within Enbridge, maybe your educational background and other work experience?

A. Sure. I'll maybe start off on a chronological order and work my way through that. I joined Enbridge in November of 1991. I joined the company out of Edmonton here and I was in the Engineering Services Group, working in the area of engineering standards. I've also spent time working in areas of operations. My first role was in Western Operations where I worked with --

MR. NICHOLSON: We'll go off record. We're off record.

(Off the record.)

(On the record.)

MR. NICHOLSON: All right. We're going back on the record now.

BY MR. NICHOLSON:

Q. Scott, if you'd please continue with your background at

Enbridge?

A. Sure. After working a couple years in engineering services I moved into Western Operations, which was involved with Western Region, Central Region and also our Norman Wells Pipeline. After that I worked in roles within Western Region, starting off as an operations engineer and then as a supervisor in Western Region, which is based in Edmonton.

In 1999 I transferred with Enbridge to, at that time, our Duluth, Minnesota office and took on the role of manager, operation services. One year later I took on the role, also in Duluth, Minnesota, as manager of engineering. I stayed in that role until 2003.

At that time I left Enbridge for approximately 3 years and went to work for an aircraft manufacturer in Duluth, Minnesota, returned to Enbridge in mid-2006. At that time I was in a role of market development as a manager of market development for our tankage projects, and then I stepped into the role of director of Southern Access Project, which was an expansion from -- for the most part, Duluth -- from Superior, Wisconsin down through Wisconsin, Illinois, with a terminus point at Flanagan, Illinois.

Once we finished that project, I moved into the role within our Major Projects Group as director of construction, safety and services, and I assumed that role until mid-May of 2010 at which time I took on the role of director of safety culture.

As far as my educational background, I graduated from the University of Alberta in Edmonton with a mechanical engineering degree, bachelor of science in mechanical engineering.

Q. Okay. So the position you're in now was created in May of 2010?

A. Yes. It was a new position.

Q. So there was no one previous in this position?

A. Correct, yeah. It was a position that was created. I was approached in April with regard to the position and then there was a transition time from the previous role until I assumed that role in mid-May.

Q. And do you know what prompted this position to be created?

A. Enbridge, after the fatality incidents that we had in November of 2007, milepost 912, and then a fatality -- which was two fatalities; and then in March of 2008 we had a fatality in Kerrobert, Saskatchewan, made the decision that they wanted to really take a thorough look at our safety culture, and I think that the determination was that it wasn't something that they wanted to do integrated within the existing structure and that they wanted to really approach it with a new position.

Q. So as director of safety culture who do you report to directly?

A. I report directly to Leon Zupan, who is the senior VP of operations.

Q. And who works beneath you?

A. I have no staff. The role that we looked at, we felt that it was one that safety culture involved the entire liquids pipeline organization, and we felt that the best way to really make sure that that was -- the safety was owned by everyone, not just a department or an individual, we chose to really work at it as a single individual in a department.

Q. Okay. I think at this point I'll hand it off to Barry then.

MR. STRAUCH: Okay.

BY MR. STRAUCH:

Q. Scott, did you take any special courses for this position, any more training?

A. I would say really that my experience -- the answer is no, I haven't taken any special training specific to this role.

Q. Okay. Have you given any training specific to this role?

A. The training that I've really embarked on at this point has been to really educate people on safety culture. I also work with a consultant, though, that is providing expertise in that area.

Q. Okay. So you've conducted internal training on safety culture within Enbridge?

A. Yes.

Q. Okay. And can you tell us about that training, how long

it is, how often you've given it and so on?

A. The training that we've given with regard to safety culture has been more focused on the role out of our live-saving rules.

Q. Okay. Can you --

A. Well, what we've embarked is -- I guess I'll step into it and say that we have a consultant working with us who has expertise in safety culture and the development of safety culture programs, so we've been working with that group. My role is really to facilitate the communication, making sure that we have people that are able to help us with our safety culture program.

The group that -- or some of the work that I've been doing is on our life-saving roles, which is six rules that are really founded on real-life incidents, and those rules have just recently been rolled out. They are rules that are really based on our belief that we need to raise the profile of areas where we feel the most significant incidents could occur within our organization.

Q. Okay. What are some of those areas?

A. Well, the rules that we're focused on right now are -- what we've looked at is the hazard assessment. We've looked at driving safety, confined space entry, ground disturbance, isolation of energized systems, and then the sixth one would be reporting of safety-related incidents.

Q. All right. So it sounds like these areas that you're

focusing on deal with on-site safety.

A. For the most part they are workplace safety related type items within the life-saving rules, yes.

Q. Does your job entail safety of operations, analysis of incidents and so on and so forth?

A. Part of the scope of our safety culture effort does include -- the three areas that we're focused on are workplace safety, process safety management and contractor safety.

Q. Okay. The consultant that you retained, you said his -- it's an organization or it's a person?

A. It's an organization.

Q. And they're Canadian based?

A. They have Canadian offices, but they also have offices in the U.S.

Q. And their job is to provide safety expertise for you?

A. Yes.

Q. I see. And how much longer will they be retained?

A. At this point we've engaged them for 2 years. That engagement -- that most recent engagement started in April 1st of 2011.

Q. Now, you were approached by someone within the company for this position?

A. Yes.

Q. Who approached you?

A. Leon Zupan.

Q. Okay. And do you know why he approached and not somebody else?

A. No. I think that question would probably be best posed to Leon himself.

Q. Well, was there anything about your background or your interest that you had discussed with him about safety?

A. Yeah. Certainly, my background -- I've spent many years in operations and engineering. I've also always been a strong supporter of a strong safety approach, a strong safety program, so I looked at myself as having, you know, 15 years of experience, Canada, U.S., operations and engineering.

Q. Okay. You know, I've been doing this job for a long time and you're the first person I've met whose job title actually has the word safety culture in it. For me it's kind of unique. So when you think of safety culture what do you envision or how do you define it?

A. Safety culture is -- the word culture is a difficult one to explain. As an individual with an engineering background, it was certainly one of those roles where you step into it and you want to try to put a solid equation to it or something that has an equal sign in the middle of it. I think that the way that I would describe culture is it's behaviors, and what you need to do to change your culture is to first off identify behaviors and then change behavior.

Q. So how have you gone about doing this, identifying

behaviors?

A. We started off -- so the consultant that we are using is Dupont Sustainable Solutions, and we engaged them for their expertise in working with companies with regard to safety culture.

In 2008, they came in after the fatality incidents that I referenced earlier and they did a benchmark assessment of our safety, and they were looking at leadership, structure and communication; I believe was the third area.

So they did a benchmark assessment of our safety culture, identified areas that they felt we needed to have a look at, and I believe that that assessment was completed at the end of 2008.

Q. I'm sorry. Leadership, and what were the other two?

A. It was leadership, structure, and I believe the third is communication and process.

Q. So they did an internal assessment and they identified these areas?

A. Those are three -- so they look at -- those are the three areas that they look at in their assessment.

Q. I see. Okay. And from that, then they're working with you and the company to identify how to change these areas?

A. Yes, areas that need improvement, areas that we need to more forward with improving our overall safety culture.

Q. Now, these three areas, are they for each of the three areas that you identified that were focused on safety? I believe

you said workplace safety, contractor safety and processing safety.

A. Yes. There's elements within each of the three areas of, as I said, leadership structure and the processes and communication. There's areas within each of those that have components on contractor safety, workplace safety and process safety management.

Q. All right. Let's talk about process safety and leadership --

A. Okay.

Q. -- and what changes are you going to make in that area or are you making in those areas.

A. Sure. So let me just kind of step back a little bit further here with regard to the scope of the work that we're doing with Dupont, and then I think it will help to paint the picture a little bit more. So we're looking at those three areas that we want to make improvement. That's workplace safety, contractor safety and process safety management.

The three -- there are areas that we are focusing on within the organization. Those areas are Western Region, which is based out of Edmonton here; our Superior Region, which is based out of Superior, Wisconsin; our control center operations based out of Edmonton; and then the fourth area is office safety in primarily our administrative offices in Edmonton, Calgary and also in Superior, Wisconsin. So that's kind of an overview of the

general scope of work that we're looking at.

Within the process safety management side of things we are looking at -- we have done a preliminary assessment of eight elements of PSM, and with that we're making a determination of which ones we want to prioritize and what gap or gaps may be existing within those elements.

Q. You said eight elements within PSM?

A. Yes.

Q. What is PSM?

A. Process safety management.

Q. Could you identify these elements?

A. I can try to articulate the eight elements. I think that I know them off the top of my head. Process safety information. I'm going to just -- as we go through this I'll write these down to make sure I get them. So there's process safety information, process hazard analysis. There's management of change for technology, management of change for facilities. There is emergency response and preparedness, mechanical integrity, quality assurance, pre-start-up safety review. And the eighth element would be -- I'll have to think about that. I can't think of the eighth element here off the top of my head all of a sudden.

MR. STRAUCH: What's that called?

UNIDENTIFIED SPEAKER: UPS?

BY MR. STRAUCH:

Q. Process hazard analysis, what is that?

A. That is a structured review of every drawing that you have, every P&ID that you have, so a processing instrumentation review of your drawings to make sure that you've identified all your critical equipment, all of your hazards.

Q. Okay. And process safety information?

A. That would be the drawings, the P&ID. So all of your critical drawings, all of your critical information that you require examples of records like hydro-test records. The PHAs would be considered a drawing that would fit into our process safety information.

Q. I'm sorry. PHA is --

A. Process hazard analysis. The acronyms are -- I don't mind being corrected on this.

Q. And pre-start-up safety review?

A. Pre-start-up safety review is just making sure that you review -- you have a structured review of your -- of the project prior to placing it in service, making sure that you have completed all of the work, make sure you have all the drawings in place, make sure that you have procedures for everything prior to starting up that piece of equipment.

Q. And you said you were brought in because there had been two fatal accidents, I think, in November of '07 and March of '08. Did you implement any changes as a result of those accidents?

A. At this point I think that -- so that -- maybe go back

on the timeline. I stepped into the role in May of 2010. We were finalizing -- we were in the process of finalizing our scope of work with Dupont at that time. We worked through that finalization of scope, but prior to completing that scope and signing the contract the Marshall incident occurred.

At that time there was a large number of resources that were rerouted to make sure that we responded to that emergency. I was one of those people. But also the fact that many of the people that were going to be involved within the safety culture effort were being moved around we really never developed or signed the contract until April of 2011, so there was basically a, you know, 9 or 10-month gap in the effort to move that forward.

Q. Is Enbridge conducting an internal investigation into the Marshall incident?

A. I don't know the details of that. I haven't been involved with the investigation. I believe there is an investigation that's been done, but I'm not directly involved with that.

Q. Will you be expected to make any changes in operations or the aspects of, I guess, the process management as a result of the Marshall incident?

A. So we are looking at the changes to process safety not specific to the -- at least at this point not specific any investigations that are going on. We are doing it based on our benchmark assessment that we performed, and then this recent

project improvement team that we've put together to look at these eight elements and assess the gaps that we saw as existing within the process safety.

Q. So whatever you do as a result of the Marshall incident really is independent of the internal review that the company's doing or our investigation. It's really more a function of the safety work that you're doing with the consultant is what it sounds like.

A. That is correct. I would say, however, that once that information is disclosed, I think that if there is overlap or if there are gaps that we have within our assessment that do tie directly to the investigation by the NTSB or investigation that's done internally, we certainly wouldn't leave that out if there was an area of opportunity for improvement.

Q. Have you identified any changes that need to be made in the team structure in the SCADA Center?

A. No. We haven't got that specific at this point yet.

Q. How about presentations of data and the SCADA Center?

A. No.

Q. Alarm prioritization?

A. No.

Q. Training of operators?

A. We certainly see that as one of the areas that we will be working with, but the control center operations on this is in the area of training, yes.

Q. Can I ask what changes you expect to make in that area?

A. I don't think that we're at the point where we know the details of that right now.

Q. Okay. How about OQs?

A. I haven't got into that level of detail yet.

Q. Okay. Hiring of operators?

A. No.

Q. Could you just kind of describe, if you can, what a typical week is in your position, what you -- when you go to the office on Monday what you expect to accomplish or you end up accomplishing by the end of the week?

A. A lot of my role involves facilitation, so it's making sure that we have a good understanding of the people who need to be engaged in areas in order to make the improvements. So I would describe my role as one of project manager for the work that we are doing on the safety culture, making sure that we have our consultants working with us to assist us in the areas that they need to, making sure that the departments that they're working with are engaged, and also making sure that they stay within their scope of work. It also involves working with our leadership to make sure that we are giving them enough information that they can provide us with direction on areas that we need to focus that work.

So a typical workweek would probably involve meeting with some of our leadership, meeting with some of the areas that

we're focusing in, so I would probably have a meeting at least once a week on process safety management. I would talk with the people that are involved with our contractor safety management work. I would talk with our consultants. I would talk with people in Western Region, Superior Region and also control center operations.

Q. And would you meet with Leon Zupan in that week?

A. I would meet with Leon. It may not always be on a weekly basis, but I certainly would talk with Leon at least once every second week, quite often more than once per week depending on the situation.

Q. When do you expect to implement all the changes that you are working on now, designing?

A. The implementation will take place over a 2-year period. We believe that 2 years is the right duration. We want to make sure that we put this in place, establish processes and structure that are sustainable, so we are trying to focus on those areas that are high priority, making sure that we address those sooner, but we look at the implementation over a 2-year period and then sustainability beyond that.

Q. Okay. So when does the 2 years start?

A. The 2 years started in the April time frame of 2011.

Q. So presumably by spring of 2013 you expect to be done?

A. Yes. And I want to be very careful on the word "done" because I think that it is one that we certainly -- we want to be

careful because we believe that in order to truly make changes to your culture, change your behaviors, it's something that you're never done. It's certainly -- our engagement with Dupont at that point we believe will be something that will end, but the sustainability aspect, we really do need to make sure that we're never done. We can't let our foot off the gas pedal, so to speak.

Q. And once Dupont phases out what will you be doing then?

A. At that point I can't tell you for sure what I would be doing, but I think that we are developing a structure that is sustainable. We want to make sure that the ownership of safety and safety culture improvements that we make are in the areas where the operations are really taking place, so it's not a case where if the safety department isn't there we're not behaving safely. It's safety behavior that takes place at the operations level, wherever that may be.

Q. Okay. And you said there were the two accidents, one in November of '07 and March of '08.

A. Yes.

Q. How is it determined as a result of these accidents that the changes that you're working on are the changes that were the right ones to correct whatever deficiencies were identified in that accident?

A. I think that what we tried to look at was that part of the 2008 assessment. Dupont came in. It was after those fatalities had occurred. The questions that were asked within

that assessment were related to understanding the level of safety culture that we had at the time that those incidents occurred. We looked at them and the expertise that they had to say we believe that these are the areas that you need to try to focus on in order to make sustainable changes to your safety culture.

Q. Based on what you know of the Marshall accident, do you think that -- do you see any other changes that you might want to make over and above what Dupont has already identified as a result of the '07 and '08 accidents?

A. Well, I would say that one of the changes that we did recognize was that when we were developing the scope of work prior to Marshall it did not include the control center operations. We were more focused at that time on field work and workplace safety based on the fact that the two fatality incidents with three individuals losing their lives occurred in the field. They were workplace type incidents.

I think that what we realized after the Marshall incident was that safety was much larger than workplace safety, individual safety, and I think that that's when we started to develop a better understanding of, number one, the need for process safety and also the need to make sure that control center operations was included within the scope of our safety culture effort.

Q. So you did sort of shift directions a little bit?

A. We did shift.

Q. And the shift was to include operation safety?
A. Was to include control center operations.
Q. And did Dupont Sustainable Solutions have expertise in that area?
A. Yes. They have expertise in certainly control center operations within their own systems, not specific to pipelines, although they did have some pipeline experience in previous years; but they do have a fair amount of experience in control center operations themselves within their plant structures.
Q. Now, control center operations sounds kind of like what we're talking of human factors expertise, managing, interface, human systems interface. Does Dupont have that kind of expertise?
A. Yes, they do.
Q. Are you familiar with safety management systems?
A. Yes.
Q. ISO 9000?
A. Not specifically to the -- I'm not sure what the ISO 9000 is, no.
Q. Well, safety management systems, is that where you see this going ultimately, what you would have would be, in essence, a safety management system?
A. Yeah. I mean we do have a safety management system that is in place. We do have a safety management system, but I think that this would be something that would be enhanced, an enhancement beyond that. I think that it will fit into our safety

management system.

Q. Okay. I don't have any more questions at this time.

MR. NICHOLSON: Okay. Brian?

MR. PIERZINA: Actually can we go to Karen?

MR. NICHOLSON: Let's go to Karen.

BY MS. BUTLER:

Q. You're going to have to give me some background, a little bit.

A. Sure.

Q. So if I ask you something, just -- if it's not clear, give me pause and I'll see if I can't clarify it.

A. Sure.

Q. Okay? What do you envision with the safety culture that's evident for a company that's emphasizing safety?

A. I'm going to get you to try to ask that question one more time to see if I can --

Q. Okay. In other words, if I were to say here's a company, what would be the earmarks of that company that you would look for that would say that it really emphasizes safety to the point that it's a safety culture?

A. I think that the goal that we would be going for and the vision that I would see there would be a level of interdependence where you're not just looking out for yourself or you're not just doing things because you're told to, but that you're looking out for yourself and you're looking out for the people around you.

Q. Does Enbridge currently have a near miss definition or a close call definition, anything in that area?

A. Yes, we do have a near miss definition. You used the term near miss, I think.

Q. Okay. Where is that definition located, is that a procedure or a standard?

A. It would exist within our -- I believe within our operations and maintenance procedures.

Q. And in that specific procedure that would be applicable to near miss, does it explain how someone can log a near miss or report a near miss?

A. Yes. We have a near-miss reporting program where we try to make sure that that information flows and we can take advantage of that and apply a lesson learned without having the incident itself.

Q. What's the name of that reporting program?

A. We would have -- it's the near-miss program.

Q. near-miss program, is that --

A. Yes.

Q. Okay. When you say it's a program, does that refer to software or does that refer to a total approach to what you do with near misses; or when you say program, what does that mean?

A. Well, it's certainly something that -- it's not as structured as I think that it needs to be as we go forward. It is certainly something that we track. We do have a form that is used

for a near-miss report and we will investigate near misses as well.

Q. Can that near-miss form be filled out by anyone in the company or is it specific to certain divisions or only under operations?

A. I believe that it can be filled out by anyone within the organization. Typically what we'll have happen, though, is it may be an individual that would have to go to one of our safety coordinators, one of our safety professionals, to get that form depending on their experience with it.

Q. Can that be filled out anonymously?

A. I'm not sure if it can or not.

Q. What does Enbridge do to monitor near-miss or close-call events that have happened in various departments?

A. Monitoring, maybe -- when you're saying monitoring --

Q. Let's say that you have a reporting system --

A. Okay.

Q. -- which you do, and let's say that somebody uses it --

A. Yeah.

Q. -- then what do you do to review that or look at that or basically glean the information out of that?

A. I would say that the structure that we have right now is not as strong as it needs to be with regard to our near-miss program. I would say it's not nearly as evolved as areas like the medical aids, modified works, days away type structure where we

have a much more formal action process.

Q. Do you look for trends?

A. Yes, we do. I mean we certainly try to assess them. I think that where we're probably struggling a little bit right now is getting the near-miss report, so the number of near misses that are being reported, I think, is lower than what we would expect based on our performance record.

Q. Do you have an idea as to why?

A. I would say that it's probably tied to a culture that we need to really work on and make sure that we create an open enough environment to draw those reports out.

Q. Okay. Regarding that, since it was a very nicely -- communication being open and feedback being allowed in an environment where there's not some type of reprisal action or some type of disciplinary action can sometimes help with open communication. So are there things that you're doing in that regard to change how it's been in the past or maybe further open communications?

A. Well, certainly, I guess -- you know, one of the questions you asked about is anonymous. We do have a hotline. It's not specific to, you know, reporting of near misses. It's a hotline that's open. It's more for things related to code of business conduct. However, that line can be used for any number of things, and so I think that there is an opportunity for anonymous reporting if necessary. I think that right now -- I

don't know if it's related to disciplinary concerns as to why it's not being reported. I think that really -- you know, I think that it's maybe just trying to raise the profile of it to make sure that people clearly understand why near-miss reporting is important.

Q. Are you aware of any time when someone may have reported a near miss or a close call and they did receive disciplinary action?

A. No, I'm not.

Q. Has upper management done anything that you believe reflects a high commitment to safety recently?

A. Yes. I think that our leadership has really recognized the importance of changing our safety culture. They're speaking openly about the importance of safety. They've talked about it as an area that's of value within the organization, and I think that that started right at the very upper levels of our organization with Pat Daniel speaking to it. And I think that it's also the -- demonstrating the importance by making it the highest priority that they have every time that they look at the work that they're doing.

Q. Okay. Is there anything that you can think of on a daily basis that would reflect this commitment?

A. At the start of every meeting that we have we have a safety moment, so we start off our meetings with just a brief discussion about something that's happened. It could be workplace

related, it could be personal safety related, but it's the first thing that we talk about. And what we're trying to do with having a safety moment is to really put that first thought in people's mind. It's the first thing that we talk about when we have a meeting.

Q. What is done to review that decision making that occurs at various levels within the organization has kept an emphasis in this area?

A. Decision making related to?

Q. Let me give an example --

A. Sure.

Q. -- and then you can ask me if I need to re-ask it again.

A. Okay.

Q. An example might be we make the decision to put in a new pipeline and it's got to be in by X date, and yet we know that that date is pushing it to the point that we're running crews pretty hard and fast, and at some point there's either got to be a decision to change the date or there's got to be a decision to make the date. That can impact safety. So what is being done in this new culture or will be done in this new culture to reflect that decision making can have a direct impact on safety?

A. You know, I think that you've hit the nail right on the head as far as one of the areas when we look at the importance of some of the changes that we need to make within our safety culture and that is ensuring that there is an understanding by people

within departments, more in the office areas, and the impact that they can have on the safety of our operations based on the decisions that they make. And I think that that's really one of the areas that we are trying to focus on, is to make sure that there is a greater understanding that the impacts of the decisions they make. Whether it be on the design of that new pipeline, whether it be on the constructability of that new pipeline, whether it be on the schedule, whether it be on the quality or the material selection, those are decisions that ultimately affect the safe operation of that pipeline and I think that that's one of the educational areas that we are going to be focusing on.

Q. Do you think that starts at the top?

A. Absolutely. It starts with -- it really -- it involves leadership, making sure that they understand it. It involves leadership, making sure that they are demonstrating the behaviors that are necessary so that they're not saying one thing and doing another thing, so yes, it definitely starts at the top.

Q. Okay. Do we ever take, once a project's been done, and look back on the ramifications of those decisions directly related to safety?

A. So we do -- after our major projects there is a lessons learned piece, and each of the groups within our major projects provides input into those lessons learned, and that would include the safety groups within that.

Q. Okay. How does conservatism associated with the safety

in the workplace enter into your decision making process? Is there a specific thing that comes to mind?

A. Conservatism in what way?

Q. For example, we'll take integrity. You run a tool. You can add maximum tool tolerances. It makes the decision based on that (indiscernible) any more conservative in nature. Are there types of things like that that you're discussing regarding adding a level of conservatism into your approach on projects that could further impact safety?

A. Well, with your example I would have to defer that one to Pipeline Integrity. And I'm trying to think of another example that might supply or provide -- you know, focus specifically on a construction project, but I'm not sure of the answer when it comes to integrity in that situation.

Q. Okay. Could you relate that conservative approach, say, to maybe the types of approval process on a capital or maintenance project that can impact safety? More monitors in the field, for example, hazard monitors in the field or something of that nature?

A. Honestly, I can't think of one that would apply to that, no.

Q. Okay. Is there anything that you've done to enhance communications across teams?

A. We are trying to set up our committees right now. One example that I would give with regard to making sure that we have cross-team communication is that our contractor safety management

has individuals from the Liquids Pipelines Engineering, Liquids Pipeline Operation and also our Major Projects Group. So we've tried to incorporate all three areas that have significant involvement within contractor safety management.

Q. Is there anything that you do to routinely look for maintenance requirements?

A. That's not an area I'm directly involved in.

Q. Do you do anything associated with monitoring work hours of employees?

A. I believe the work hours are monitored. That information is certainly available to our general managers, director levels, through HR and through our PeopleSoft program.

MS. BUTLER: That's it.

MR. NICHOLSON: All right. Brian, do you have anything on that?

MR. PIERZINA: I have just a short couple.

BY MR. PIERZINA:

Q. And, Scott, just from listening to what you're saying, it seems like, you know, depending on various functional areas -- I'm having a hard -- are you having a hard time getting everything tied into safety culture, you know, into that department, or is that not even the intent? Is the intent -- I think the example like integrity, integrity safety has, you know, has a safety culture, you know, maybe a conservatism or something and -- for instance, the near-miss program, which functional area would that

be in?

A. So the near miss, functional area would be within two areas. That would be within our operations safety and it would also be within our engineering safety groups.

Q. Okay. That sounds like Major Projects.

A. Yeah. I guess that would be a third area. I'm speaking specifically within the Liquids Pipelines, Brian, but I think that the third area would be our Major Projects safety group as well, yes.

Q. So I think my question is how do you pull all these different functional areas into a corporate safety culture? How do you know that it's going everywhere that it needs to go, whatever lessons learned under -- you know, information that's being gathered?

A. I think that that's one of the areas that we recognize that we have a gap in right now, and the way I would describe that would be to say that we have -- as an example, near-miss reporting, but we aren't necessarily -- we don't have the governance and the structure set up in order to make sure that we're consistent with that reporting from perhaps Major Projects into the Liquids Pipelines Engineering or the Liquids Pipelines Operations, and I think that that's one of the areas when we look at safety culture will be to assess the governance and the structure that we have to make sure that we can create consistency within those types of programs.

Q. So in -- and just kind of -- I was thinking out loud, but I'm thinking that, you know, communications across those functional areas is kind of critical to make sure that everybody's learning whatever lessons there are to be learned, right? So would it be up to, I guess, your position to help design a communication system that facilitates on that learning across the functional areas?

A. I think that what we're trying to do -- there's probably a couple of groups that are working within the organization right now to try to create consistency, to try to create a structure that's integrated. I think that when I look at things like process safety management, as an example, when I look are management systems, I think that what we're seeing is that we do have elements that are -- that we have implemented, some to varying levels of success and detail, but I think that one of the things that we have recognized is the importance of making sure that we integrate those systems so that they do go across the entire business unit, making sure that we have that information shared and making sure that there is a consistent understanding of how we manage that work so that it is across the organization and there is shared communications, timely communications, as an example.

Q. Okay. Would you envision -- whether it be a near miss or a lesson learned, would you envision that stopping at a certain level within a region, for instance, if it's, say -- it's hard to

call something less significant, but, you know, if there is something that has, let's say, more consequence, near miss or something? I guess I'm really curious whether or not you could see some of that communication stopping at a certain level, for instance, say, within a region or would you expect information that comes through the safety culture to be communicated across regions regardless?

A. Well, I guess the first thing I'll say is that you have reminded me of the eighth element that we're looking at --

Q. Oh.

A. -- within process safety. The eighth element is incident investigation.

Q. Oh.

A. And I would say that what we recognize there is that we need to ensure that we have a very strong incident investigation process in place, and that includes all types of incidents. It's not just workplace incidents. It could be an incident related to a release. It could be any type of incident that you would look at.

And so there's probably two pieces to that that I would look at, Brian. One would be the actual incident investigation itself, and then I would look at also the reporting or how we manage that information, who it's shared with, and I think that -- and how we track it, how we monitor trends, kind of along the lines of what Karen was looking at, and that is an area that we're

looking at from a structural point of view for incident investigation. We are also in the process of developing a new tool that will hopefully allow us to better manage and track all incidents.

Q. Okay. You know, to me, and I don't have the answer, it's just, you know, you have the risk of information overload, you know, with all this, but you also have the risk of not -- you know, not relaying information to the boots on the ground where the lesson that needs to be learned, you know, or a lesson that's learned in Chicago needs to be learned in Superior or Edmonton, but, you know, you run the risk of overloading people with too much information.

A. Yeah, and I think that's the -- so I think that, number one, it's making sure that you have individuals that are properly trained to do an investigation and make sure that they understand how to get to the root cause and corrective actions. So I think that's the first piece in the investigation side of things. And then the tool that we're looking at is that we're hoping that that will provide us with a means of -- we do -- we certainly do tracking, we certainly try to do trending, but I think that that's a tool that we're hoping will help us to manage the number of incidents.

And also we hope and one of the things that we want to be able to do is to develop a near-miss program that truly pulls all of that information from our organization. And one of the

things that's important within a near-miss program is that when the information does start to come in you're able to process it and actually do something with that information so that people will continue to report that stuff. So it's kind of two pieces. It's proper training on the investigation side of things and then it's managing the information and using it properly.

Q. Okay. When you talked about lessons learned on major projects, that's after completion of the pipeline construction project or something. So I guess, for example, if you find after -- you know, after you've built a pipeline that through your efforts to validate that you've got a sound pipeline you end up doing a number of digs for dents or other anomalies so that you'll have some lessons learned, would those be applied all the way back to, say, inspection -- you know, the inspection that was conducted, that they would need to spend more time, you know, watching these aspects of the project?

A. Yes. Yeah, absolutely, and that's the -- it's a really good example. I think that that would be the type of thing where you do want to make sure that if there was an area within that construction that -- you know, if there was a demonstrated weakness, if it was a situation where, you know, during a caliper run you realize that, hey, we've got dents in this, let's investigate, why do we have these dents; and if it led back to the fact that we needed to have better training inspections, then that would be the type of lesson learned we would try to apply.

Q. Okay. So that would be within the Major Projects Group. Would it go outside of that at all?

A. I don't know. That's a piece of -- when I was in Major Projects I was directly engaged with that, so I am very aware of what they do within Major Projects. I'm not sure of what they do within the Liquids Pipelines side of things within the Engineering or within the Operations Group.

Q. Okay. Sometimes those Major Projects lessons learned become Operations problems. All right. Thank you.

A. Yeah.

MR. NICHOLSON: Okay. Jay, do you have any questions?

BY MR. JOHNSON:

Q. Well, I just -- you know, maybe it's an opportunity. You know, you're working on changing the safety culture, or enhancing maybe is a better term. Enbridge had a fairly robust safety system in place. I don't know that we've addressed that. Is that something you want to touch on?

A. Yeah. You know, I think that as we've assessed our current safety culture and our safety program, I think that what we have recognized is that we have a pretty good workplace safety program. We have systems in place to make improvements in areas that we need to and we have procedures in place. I think that what we've recognized with our safety culture effort here is that we -- I think that what we're seeing is that there are gaps and there are areas of opportunity to improve. I think that it's not

a case where there isn't procedures. It's not a case where there isn't leadership.

We have certainly leadership commitment. We have structures in places. We have processes and procedures in place. I think that what we're seeing right now is that we can improve on all of those, and I think that that's really the key here, that we need to identify where we have our gaps and then we have to make the right decisions to make the right improvements in that area. And I think that that's -- that's not a small task. I think that it's a challenge because it's making sure that you identify the areas that need that improvement.

And I think, to go back to some of the questions that were asked with regard to the internal investigation on Marshall, the investigation that the NTSB is conducting, I think that we certainly want to have the opportunity to utilize that information to make ourselves better. I think that that's really the key here, is to understand where we're at, but also to understand that we have a system that is in place, and I think that's it an important point to make. It's not a case where we had no policies, no procedures, no leadership. I think that we have had good leadership, but we also recognize the need to improve that and to get better.

Q. I think that maybe Karen asked the question about reporting near misses. Is it still part of the program for the safety awards each year where actually you get incentive points

for reporting close calls?

A. So there is a component and maybe I'll talk a little bit about our recognition program. We do have a recognition program that applies to our workforce in the field and in the offices. The programs are slightly different, but there is a program that's in place. And certainly there is, I guess, a recognition system that we're trying to work on to pull that type of information, safety behavior in general, but certainly near misses is one of those areas.

I think that when we say that we aren't getting the near-miss reporting to the level that we would like to see, certainly we -- as a guideline we look at the safety pyramid which is a -- it's really a ratio where you start with things like near misses, and certainly the more near misses that you have, the greater the potential number of serious incidents that you can have.

And I think that if you can find out -- if you can get all of those near misses, analyze trends and reduce the number of near misses that you have, theoretically you certainly should also be able to reduce the number of serious incidents that you have. And I think that that's our goal and I think what we're seeing is that the number of near-miss reports that we're getting isn't as large as we would expect based on the number of days away and medical aids that we've had within our structure.

Q. And you probably asked this question yourself, but do

you see more involvement -- I guess more dotted lines to your group from the existing safety groups in the future?

A. So --

Q. It's a tough question.

A. -- I'll go back to kind of how we were structured or how I was structured in the role where I'm a department of one reporting up to Leon. The way I would describe the safety culture effort is that it's a project that involves safety, but really what we're looking at is the need to make sure that we look holistically across the entire organization to have a look at improving the overall safe operations of our pipeline system.

So I would say that the safety professionals within the organization, the safety departments within our organization, play an important role within safety. They play an important role within safety culture. But I think that really the thing that we need to look at is to make sure that we have a culture that doesn't rely on the safety person being there in order to make sure that the work is done safely. They can coach. They can mentor. They can make sure that they help to provide the systems, the policies, the procedures to help the work be done safely, but I think that that's the shift that we're trying to see, is to make sure that the accountability for safe operation of the pipelines is each of the individuals that are doing that work.

Q. Well, some -- half of us here for sure, four -- actually more than that counting yourself, were at Marshall and obviously

there was a ton of work going on in hazardous situations. You came in early on in the safety culture role. I'm just curious. Did you -- how did you see the focus there with management and everything else that would, say, resulted in such an excellent safety record, you know, with all that work going on, with all the contractors and everything else?

A. Well, one of the things I would say is that within the incident command system safety is a separate group within that structure. We looked at safety and we believe that safety is a line responsibility. Within the incident command structure that role is kind of separate from the actual line supervision and the line workers.

What I would say is one of the biggest positives that I think I can take away from Marshall as far as safety would go would be that the pursuit of excellence, the pursuit of zero, was relentless. It was never good enough to settle for good enough. We pursued excellence within our safety program throughout the entire effort.

And certainly when you're responding to an emergency there could be a tendency to lose sight of really what is important, and I think that we tried to make sure that we focused on cleaning up the oil, but we also wanted to make sure that there was no situation -- I guess a situation where safety wasn't our highest priority. The focus was kept on safety and I think that we were able to demonstrate that with that relentless pursuit we

were able to achieve that.

And I will say that it's an area where the EPA, in fact, was relentless in making sure that we pursued that ourselves as well, and I think that we've seen a change in our culture as a result of that. There is opportunity for improvement if you continue to say we're going to do better every day when we come in here.

Q. That's all I have.

MR. NICHOLSON: Okay. Barry, do you want to follow up?

MR. STRAUCH: Yes, just a couple of follow-up questions.

BY MR. STRAUCH:

Q. I think it was 2005, 2006, the NTSB did a report, safety study, on SCADA systems. Have you read that?

A. I have not.

Q. Okay. Well, are you familiar with it, have you heard about it?

A. No, I haven't. I don't think I have.

Q. Okay. In your reading of incidents and accidents did you read reports about the company's incidents or accidents?

A. I have read some, yes.

Q. The NTSB report in 2005 or 2006 found that several of the major accidents, pipeline accidents, involved not only pipeline issues, but also control room issues. In a sense that goes to some of the things that you're looking at. If a recommendation that comes out of this Marshall accident calls for

significant changes to the control room that will entail additional expenses, what would be your role in terms of recommendations such as that?

A. So the control center operations reports up to -- ultimately to Leon Zupan in operations. I report up to Leon as well. I would expect that if it involves areas where we can make our control center operations safer that I will be involved or have some input into that. I think that right now when we're looking at areas of improvement we certainly aren't dwelling on the cost aspect of it. It's important to make this pipeline safer to operate and that's what we're really going to do. We need to make sure that we assess the risks and lower the risks, and if there's something that comes out of an investigation related to that, that's what we intend to do.

Q. So you would see your role as advocating the implementation and recommendations whether or not it increases Enbridge's costs?

A. In general terms, yes. I think that's the way I would see it. I think that right now certainly we want to make sure that if we are implementing changes that it truly has an impact on our risk profile. But if that's what's identified within an incident investigation, I think that certainly we want to understand the costs, we want to understand the benefits, but if it's a matter of truly lowering our risk profile and reducing future incidents, I think that that's -- the direction that we

would take is that we would be doing the improvement.

Q. When you were first assigned or given this position, what were your marching words with regard to the role of costs in any of your recommendations?

A. In my recommendations I don't think that I received direction specifically with regard to the overall management of cost. We wanted to develop a scope of work that was the right scope of work to make the improvements that we needed to. I had discussions with Leon Zupan with regard to what that scope of work was. Leon never questioned the dollar impact of that initiative.

Q. And what kind of reception do you anticipate as a result of this investigation given the likelihood that recommendations that are made may entail additional costs?

A. I think that we want to make sure that we can, you know, understanding the learnings from this investigation. Similar to the work that we're doing right now with our assessment ourselves on our safety culture with Dupont, our goal here is to understand areas where we need to improve and then make those improvements, let's implement those improvements.

Q. And let's just say for the sake of argument that our distinguished colleagues, PHMSA, say to you as a result of our recommendations, well, you can go ahead and implement those recommendations, but you're not required to because the rules don't call for that. What kind of reception would you expect then?

A. I truly believe that right now our goal within our organization is to make sure that we continue to improve the safe operation of our pipeline systems, and I think that if we believe that the recommendations that come out of the NTSB report will make our pipeline operations more safe, then we will implement them, and I think that we do that today. We try to operate at a level where we operate our pipelines safely. We certainly operate our pipelines within the regulatory requirements that are given to us by PHMSA in the U.S. and the NEB within Canada, but we also want to make sure that if there are areas over and above that that will allow us to operate our pipelines more safely then we follow those procedures.

Q. Okay. That's it.

MR. NICHOLSON: I've got some follow-up questions and I'll go ahead and shoot them out here.

BY MR. NICHOLSON:

Q. I'll start with the funding aspect that Barry was hitting on. I mean there is definitely -- there's got to be some contrast there between what you're trying to do, what other departments are trying to do, and I know you say you're an advocate and the company will be behind you for safety, but the reality is it's going to -- safety costs money sometimes, right?

A. Yes.

Q. I'm curious. Where does the funding come from for programs you're trying to initiate? Do you have a bucket of

money?

A. Right now the work that I'm doing, I've got the funding that I need for my specific safety culture work that I'm doing, but if there is initiatives or improvements that come out of the work that I am involved with, that funding would come either -- well, it depends on which group it's within, but certainly it would come from within our operations or capital work that's being done, so that would be through our various VPs within the organization.

Q. So that department actually ends up putting up the money for the implementation?

A. Correct.

Q. If it's control center, it would be control center?

A. Yes, correct.

Q. I want to go back a little bit. You've mentioned that there had been some opportunities seen in the control center for changes already, but I wasn't clear what the -- what was identified for change in the control center. Can you elaborate?

A. So the scope of work for our control center operations is going to be focused on -- along the same lines of the three areas that we've talked about, workplace safety, process safety and the -- if there is a component, certainly the contractor safety side of things.

I think one of the areas that we're looking at as we move forward is they've done -- they've just recently done a

baseline assessment, so in 2008 when we did the assessment control center operations was not interviewed as part of those assessments. They recently had some discussions with individuals within the area and they are developing a scope where they want to move forward. One of the areas that they have identified that they want to have a look at is along the lines of developing a better understanding of the impact that their work has on the safe operation of field work within our operations. So that's one of the areas that they're having a look at.

Q. When you say they, their safety group in the control center SCADA or your Dupont? Maybe I just --

A. Yeah. I appreciate your clarifying. So right now what we have is we have a consultant that's working with -- so it's a Dupont consultant that's working with our control center management and working to develop that, so that they would be working with individuals, specifically with Kirk Burgess (ph.), Al Baumgardner (ph.), working to establish what is -- what's necessary within the scope of work of the control center operations side of things.

Q. Kirk and Alan are both directors?

A. Kirk Burgess is the VP of the control center and Al is a director.

Q. And this 2008 assessment and the following control center assessment, can we get copies of those?

A. I would have to follow-up on that. I'm not sure.

MR. JOHNSON: You can make a request to me. I would say yes. That would go through me and then to Bonnie, so --

MR. McEACHERN: Okay.

MR. NICHOLSON: Can we make a note of that, Jay, as we go through these?

MR. JOHNSON: Okay. So all we're looking for, the 2008 Dupont study and what was the other one?

MR. McEACHERN: It's called a benchmark assessment.

MR. JOHNSON: Okay. CCO benchmark or --

MR. NICHOLSON: 2008 --

MR. McEACHERN: 2008 benchmark assessment.

MR. JOHNSON: Okay. By Dupont?

MR. McEACHERN: Yeah.

MR. JOHNSON: And what was the other one?

MR. McEACHERN: The other one would be a control center benchmark assessment.

MR. JOHNSON: By Dupont?

MR. McEACHERN: Yes.

MR. JOHNSON: Okay.

MR. NICHOLSON: Thanks.

BY MR. NICHOLSON:

Q. Scott, you mentioned in the eight elements one of them was management of change for technology.

A. Yes.

Q. Do you know directly what that means?

A. I'm not real strong on the management of change side of things. I will say that the management of change technology ties to replacement of pieces of equipment, so it's tied more to our engineering standards side of things, so it would be changes to pumps, motors, equipment that we're looking at.

Right now what I will also say is that the scope of the initial assessment, just so that we could manage and get our arms around process management or process safety management within the organization, was specifically focused on facilities only. We kept the mainline out of it because it was just a much larger scope of work and we wanted to try to do an initial assessment here.

So what management of change technology would be, it would be associated more to our engineering standards where you can be making a change in the type of pump or the type of motor that you were using or type of material that you might be using on a pressure relief valve, that sort of thing.

Q. Okay. Now, I was also curious about the metrics. What metrics are in place to evaluate your performance and how well safety culture is being driven throughout the company? What are your metrics?

A. We are continuing to use our -- we certainly had our leading and lagging indicators specific to our safety performance. Right now we're establishing our metrics for 2012. I think that for 2011 the goal was to make sure that we had our contract in

place with Dupont, that we established the training that we needed to and then implemented, so right now my performance metrics for 2012 are being established. 2011 were more just trying to get the effort underway, but there will be specific metrics related to our safety culture performance.

Q. And then how do -- I understand that -- it sounds like Leon's onboard, board members are onboard. It sounds like everyone at the top is onboard with this whole safety culture program and you certainly are onboard, but how do you drive that down through supervisors and management level? Are there incentives or how do you ensure that this message is engrained in your middle management? Can you talk about that?

A. Sure. So some of the training that we're doing right now, there has been some training in the areas of what we call felt leadership, but the way I would describe that would be giving our leadership guidance on how to demonstrate their commitment to safety.

As far as -- so that -- and I think that's an important component as far as driving it down into our management or our supervision, but we are also doing training, a couple of specific elements that are within the Dupont safety culture work. They have operations manager training which involves management and supervisors not just within Operations, but certainly in other areas of our organization as well, and that focuses on safety behavior observations. It focuses on making sure that they are

setting goals with regard to safety and that they understand the impact that they have on day-to-day safety as well.

The third level that we have planned and we haven't started the implementation of training yet is on line supervisors, so it will go right down to the line supervisors within our Operations group.

Q. That's more training, right?

A. Correct.

Q. Is there a financial incentive at all, is this tied to their performance plans or --

A. We have -- certainly we have our score cards from a business unit and we have safety metrics within that. We also have department objectives that have safety as a performance aspect, and each individual has safety as a component of their individual performance.

Q. So for the control center, be it from operator up to shift lead through supervisor --

A. Yes.

Q. -- all those?

A. Yeah. And safety is a component of certainly our business unit performance objectives. It is our department performance objectives.

BY MR. JOHNSON:

Q. So maybe as it's been rolled over to me, Scott, I believe the persons -- a bonus structure as part of their

evaluation is based on their group safety performance and their own safety performance, so there's at least two, and then if they have direct reports, three. So is that --

A. Yes.

Q. Was that not being mandatory, was that last year that safety would be a component in every person's --

A. I'm not -- I believe it was made mandatory last year. I certainly know that it's been part of my performance metrics for years prior to that as well.

MR. NICHOLSON: The 2012 metrics for yourself, you said they're being developed now.

MR. McEACHERN: Right.

MR. NICHOLSON: Any idea of what that's -- what they're going to consist of?

MR. McEACHERN: No. We haven't finalized what those performance metrics would look like tied specifically to safety culture, no.

BY MR. JOHNSON:

Q. So would you see that as metrics on the amount of training or programs that you rolled out or would you think it would be tied to incidents or a combination?

A. Well, I would say that certainly part of my performance will be tied to the existing metrics that we have. However, I think that when you're looking to change your overall culture it doesn't happen overnight. You know, I think that we need to look

at leading indicators, probably more on my performance, because I think that the lagging indicators that we're seeing with regard to things like days away incidents or medical aid incidents or releases, sometimes those take time as you implement programs, as you change people's behaviors. That doesn't necessarily happen immediately, so I think that we need to make sure that we're focused on our leading indicators, tying those leading indicators to improving our overall performance as we go forward.

Q. And just finally then, I don't understand, what's a leading indicator in your world or a lagging? Can you give me some examples.

A. Well, a lagging indicator is truly looking in the rearview mirror. A lagging indicator would be assessing your performance statistics, how many medical aid incidents did you have in 2011 per the number of hours of exposure, the number of work hours that you had within the organization. So that would be kind of looking back and saying okay, we had X number of incidents per 200,000 exposure hours as an example.

Leading indicators would be trying to focus on -- one example I would give would be safety behavior observations. If the belief is that you can reduce the number of incidents by doing quality safety behavior observations on your coworkers and you need to make sure that you implement that, so you would track a leading indicator saying how many safety behavior observations is the expectation. That would be an example, and I think that that,

for me, is what I would be looking at for my safety indicators, would be things that are more leading, making sure that the work that we're doing is tied to improving our overall safety performance.

Q. Okay. That's it for me.

MR. NICHOLSON: Karen, did you have any follow-ups?

BY MS. BUTLER:

Q. When the company decides to reorganize, say they're going to have a new department or they just feel like they need to split a group up and make two groups, do they look at it from the safety culture? Would that be --

A. I would say in the past the answer to that would be that we -- certainly we don't have a structure in place that would consciously have a look at that. I would say that we certainly are trying to make sure that we have oversight at a level that doesn't reduce the level of safety performance that we would have, so I think that there would be -- safety would be looked at as part of a decision that would be made there.

I would say going forward that one of the areas that we are looking at and the third element that's a little further down the road, I think, within our overall process safety management is the third component of management of change and that is management of change of personnel, and I think that that's one of the areas that we're still trying to develop an understanding on and that is the impact that either an organization structure change or an

individual change could have on safe operations.

Q. So if I can paraphrase that?

A. Sure.

Q. You tell me if I'm wrong.

A. Okay.

Q. There's not an official structure in place right now to review that, reorganization changes. It won't be ignored, but there's not an official process.

A. I would say that's correct. Safety is not specifically -- there is not a process specific to safety related to organizational changes.

Q. Sorry, I think I have one other one. I think you've mentioned rewards systems a little bit and you talked about some incentives and bonus structure and you clearly indicated that workarounds from maintenance aspect was not something you're actually in that group looking at.

MR. JOHNSON: Maybe, Karen, because you asked that question -- I know, Scott, maybe you can describe the norms. You're looking at the norms as far as the procedures or getting people to review the procedures and get away from we've always done it this way. I know that was one of the process things.

And, Karen, I don't know if that's where you're heading. If not --

MS. BUTLER: Yeah. Actually I was headed in two key areas.

MR. JOHNSON: Okay.

MS. BUTLER: One is resourcing and the other one is processes. Processes speaks to procedures and revisions. So take what Jay did. I'll shift to my second set and we'll go back and get the first one after you're done.

MR. McEACHERN: So your question, Jay, then specifically was tied to --

MR. JOHNSON: Well, you know, as far as the norms, if you will, of getting people that have the knowledge to change their procedures rather than saying well, that's fine, but this is the way we do it, and I know that's part of the safety reward system, so I just thought that would -- that kind of seemed to go along the track that Karen was on.

BY MS. BUTLER:

Q. So for me if you would explain. You have a process or a procedure. You know that the procedure needs modifying. What's in place to make sure that the revision is also reviewed for a safety impact?

A. Okay. So we do have an existing management of change process. It was in place -- I don't remember the exact timing, but it was in place in 2010. I think the challenge that we have right now is making sure that everyone clearly understands when that applies and then how to apply it to ensure that the procedure or process is reviewed through that management of change process.

So there is a process that is in place. I think that

where we're lacking is on the knowledge of when it's to be used and how it's to be used.

Q. I'm going to reflect an example back from Marshall --

A. Okay.

Q. -- and what I need you to do is tell me if it would work any differently today.

A. Okay.

Q. We have a procedure that allows us to continue to pump for 10 minutes while we try to assess whether we have a leak or some other type of instrumentation process problem. If we determined that that needed to be lengthened, what would be in the review process today that would either allow that or not allow that from a safety perspective?

A. That would be an element that would go through -- or that would be a procedure that would go through a full management of change, and I think that what we would see today would be a review by subject matter experts and that would require sign-off at a senior level before any changes could or would be made.

Q. So has the management of change process in place today changed? I know that seems like a play on words.

A. I know.

Q. I'm sorry.

A. The answer is no. The management of change is the same. I think that our goal is to try to make sure that we are able to educate people on when to use it and how to use it, but I would

say that something of the profile of the rule that you're referring to would be one that would definitely be reviewed at a number of levels before any changes could be made to it.

Q. Are subject matter experts part of your management change of process now?

A. They do pull in subject matter experts and, again, that's one of the areas that we need -- I think one of the areas that they're looking at trying to improve on is making sure that they formalize who those individuals should be and would be.

Q. Okay. So my last area was on resourcing because obviously you have too few people and it can impact safety or you may have too many and they don't have specifics and that can impact safety, so when it comes to resourcing and safety culture how do you get involved in that particular aspect or do you?

A. Right now I think that what we are trying to do is to assess where the gaps would be. I think that we see a need with our emphasis on process and procedure that there could be the need for additional resources, and I think that ultimately that would be -- the role that I would play within that would be to be at the table with the VPs in raising the awareness of where the gaps are and what improvements need to take place, and if it's a resourcing issue, then we would address it at that time. So I'll be engaged with it, but ultimately those decisions on the ultimate resourcing would be at the VP or director levels within the specific departments.

Q. In the past have you been engaged in any of that yet?
A. Not within my role with the safety culture, no.
MS. BUTLER: That's it.
MR. NICHOLSON: Brian?
MR. PIERZINA: I just want to -- I have just a couple.
BY MR. PIERZINA:
Q. You guys were just talking about management of change, but I didn't see that as one of the eight elements. I saw management of change for technology, management of change for facilities, were the two listed here.
A. Yes.
Q. You're talking about something entirely different, management of change for procedures --
MS. BUTLER: Processes and --
MR. NICHOLSON: -- processes.
MR. PIERZINA: So that's in one of these two technologies?
MR. JOHNSON: That's -- you know, maybe it helps. That's not his area. Management of change, if you will, that process through the O&MP --
MR. PIERZINA: Yes.
MR. JOHNSON: -- that's in the compliance group.
MR. PIERZINA: Okay, good. All right.
MR. JOHNSON: So we can talk to Steve Irving and (indiscernible) --

(Simultaneous conversation.)

MR. PIERZINA: -- (indiscernible) I was looking for, because I want (indiscernible) you to be taking ownership of something like that.

MR. JOHNSON: No, but they're involved.

MR. PIERZINA: Yeah.

MR. JOHNSON: Management of change has safety in it. There is a safety SME on every procedure change just like there's a compliance person on every one.

MR. PIERZINA: But how do you -- how would Scott see that if it's in the compliance group to fix?

MR. JOHNSON: Because, no, we -- if you will, our group facilitates it and, like I say, like there's a compliance person on every one. I know the procedure review is to make sure that they meet regulatory. There's a safety person to make sure that people aren't saying, well, we're going to do this now from a pipeliner standpoint without a safety person on that.

MR. PIERZINA: Scott is a safety person?

MR. JOHNSON: No. The people, if you will, that are in the existing level.

MR. PIERZINA: Okay. So at the department level?

MR. JOHNSON: That's at department level.

MR. PIERZINA: Okay.

MR. JOHNSON: And then because it would go through a management of change or a revision process depending on if it

changes what people do is how it would get to Scott through the overall, the corporate MLC process.

MR. PIERZINA: So it's not just being written by the Dupont --

MR. JOHNSON: No. Actually it was in place before that.

MR. McEACHERN: Yeah. It was prior to Dupont coming on board that the MLC was put in place.

MR. PIERZINA: So in a sense he does have direct reports almost. I mean, he's got departmental safety reps that --

MR. JOHNSON: No.

MR. PIERZINA: Okay, they're not direct reports.

MR. JOHNSON: No. He's in the management of change loop.

MR. PIERZINA: Okay.

MR. JOHNSON: It has to be signed off by each one of the groups. So, integrity has a group, safety has a group.

MR. PIERZINA: Okay.

MR. JOHNSON: Compliance, pipeline integrity, facilities integrity, operations --

MR. PIERZINA: Sign off.

MR. JOHNSON: -- so on and so forth.

MR. PIERZINA: So who is that again, who is the management of change --

MR. JOHNSON: Actually I think Shaun can address that, Shaun Kavajecz.

MR. PIERZINA: Shaun's going to talk to that?

MR. JOHNSON: Yeah.

MR. PIERZINA: Okay. All right.

MR. NICHOLSON: Okay. That's all I had. So I guess with that we'll close.

BY MR. NICHOLSON:

Q. Scott, you've got our cards. You're going to think of other things. You thought of the eighth element, so we don't have to do there. When you do think of other information, you can either relay it through Jay, to myself, or contact me directly via e-mail or feel free to phone, so --

A. Okay.

Q. Anything else you think would be relevant to our investigation we'd like to hear it.

A. Yes.

MR. NICHOLSON: With that, I'll close the interview. Thank you, everyone.

(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	ENBRIDGE - LINE 6B RUPTURE IN MARSHALL, MICHIGAN Interview of Scott McEachern
DOCKET NUMBER:	DCA-10-MP-007
PLACE:	Edmonton, Alberta, Canada
DATE:	November 14, 2011

was held according to the record, and that this is the original, complete, true and accurate transcript which has been compared to the recording.

_____
Cheryl L. Phipps
Transcriber