THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

= =

IN THE MATTER OF THE APPLICATION
BY TRANSCANADA KEYSTONE PIPELINE, LP FOR
A PERMIT UNDER THE SOUTH DAKOTA ENERGY HP09-001
CONVERSION AND TRANSMISSION FACILITIES
ACT TO CONSTRUCT THE KEYSTONE XL PROJECT

= =

Transcript of Proceedings
April 27, 2009
Philip, South Dakota

= =

BEFORE THE PUBLIC UTILITIES COMMISSION,
DUSTY JOHNSON, CHAIRMAN
STEVE KOLBECK, VICE CHAIRMAN
GARY HANSON, COMMISSIONER

COMMISSION STAFF
John Smith
Kara Semmler
Nathan Solem
Bob Knadle
Stacy Splittstoesser
Tim Binder

APPEARANCES
Brett Koenecke, May, Adam, Gerdes & Thompson,
appearing on behalf of the Applicant

Reported By Cheri McComsey Wittler, RPR, CRR

Present on behalf of the Applicant:
Robert Jones
Neil Myers
James White
John Phillips
Dennis Calhoun
Meera Kothari
Heidi Tillquist
Jon Schmidt
John Hayes
Richard Gale
Jeff Rauh
Andrea McLandress

= =

TRANSCRIPT OF PROCEEDINGS, held in the above-entitled matter, at the Fine Arts School, Philip, South Dakota, on the 27th day of April, 2009, commencing at 7 o'clock p.m.

CHAIRMAN JOHNSON: I think you all know that this is the public input hearing. We're the Public Utilities Commission. I'm Commissioner Dusty Johnson. Also up here are Commissioners Steve Kolbeck and Gary Hanson. And we'll introduce the rest of the Commission staff here shortly.

But this is the public input hearing for HP09-001, and that is our fancy docket name for the filing made by the Applicant, TransCanada Keystone Pipeline, and their Application for a permit under the South Dakota Energy Conservation and Transmission Facilities Act.

The date this evening is April 27, 2009, and the time is right around 7 o'clock. And we're here in Philip. This hearing concerns their Application to construct the Keystone XL Project.

Now there are a couple of important purposes for this hearing tonight. The first is for the Applicant to inform all of us about what their Application contains. And the second and most important piece is for you all to have an opportunity in front of the Commission to ask the Applicant questions and to make your concerns and feeling on this project known to the Commissioners.

A copy of the Application is on file with the Harding, Butte, Perkins, Meade, Pennington, Haakon,

Jones, Lyman, and Tripp County auditors. And anybody may also access the Application at our Commission website, which is www.puc.sd.gov. And any of the staff members here tonight can help describe how to navigate so you can find this particular information.

So right now the parties to this proceeding are the Applicant and the Commission. But under South Dakota Law each municipality, county, and governmental agency in the area where the facility is proposed or any interested person or entity may be granted party status by making written Application to the Commission on or before May 11. We do have applications here tonight if you want to apply for party status.

Now nobody needs to become a legally-recognized Intervener to be able to have their voices heard. You can certainly talk tonight and you can send the Commission an e-mail or a letter making your feelings known and you don't need to do anything else to do that. If you want to be able to have a, you know, legally-recognized party status to call witnesses and be subject to discovery and go through the discovery process, you can do that by becoming an Intervener.

Now for the Applicant's permit to be approved they must show four things. First, that the project will comply with all applicable laws and rules. Secondly,

that the project will not pose a threat of serious injury to the environment or to the social and economic condition of the inhabitants or expected inhabitants in the siting area. Third, that the project will not substantially impair the health, safety, or welfare of the inhabitants. And, fourth, that the project will not unduly interfere with the orderly development of the region.

Now based on those factors the Commission will decide one of three things. The Commission can approve the permit. The Commission can deny the permit. Or the Commission can approve the permit with certain terms and conditions to the construction, operation, or maintenance of the facilities as this Commission finds appropriate.

We're going to begin tonight by having the Applicant make about a 30-minute presentation to explain the proposed project. And then following that presentation we're going to open it up to you all.

First we'll open it up for questions so that we can get some more information out there. Then secondly we'll open it up to comments, shorter comments because we want to be respectful for those people who have other things that they need to do tonight. So we'll allow those people with comments of 2 minutes or less to speak. And then after that we'll allow people who have, you

know, longer comments to be able to present.

We're going to ask a couple of things about the comments and questions tonight. Number one, we'd like you to keep it on topic. We'd like you to keep it relevant. And we'll allow a little flexibility there. But if you wanted to ask a whole bunch of in depth legal questions on condemnation, that's not something this Commission has the expertise with or any authority over. That would be a Circuit Court proceeding. And so we'd probably frown on a real long line of questioning dealing with something like that, for instance.

And then, secondly, we would just ask that folks try not to be repetitive. If a question's been asked, try not to ask it again. And if somebody's made comments you agree with, you can certainly make yourself on the record by saying, hey, I agree with that particular comment and maybe add a couple of, you know, qualifiers or any other information without going through the whole thing again.

Now we do have a sign-in sheet at both ends of the auditorium here. That's the official record of who took an interest in this proceeding and who came tonight, so we would really ask that you make sure to sign up there. We have a court reporter so throughout the evening we'll ask that you speak slowly, clearly, and

loudly. We'll make sure you get recognized. You can get a microphone and then start out by stating your name and your town or where you live so that we can get that for the record as well.

So with that, before we introduce others, let's pause and I'll look to my colleagues or Mr. Smith and see if I missed anything.

Okay. We'll introduce other folks here from the PUC. This is Commission General Counsel John Smith. We have over here by the table Ms. Stacy Splittstoesser. Back over here we've got Mr. Nathan Solem, Ms. Kara Semmler. Over there in the gray shirt we've got Mr. Bob Knadle. And back here we've got Mr. Tim Binder. And they -- during breaks or afterwards they'd be happy to answer any questions you've got about the process.

So with that, Brett Koenecke will be the lead spokesman here tonight for TransCanada. Mr. Koenecke, please feel free to introduce the others you have with you tonight and then begin your presentation.

MR. KOENECKE: Thank you very much, Commissioner Johnson, and thank you to Commissioners Kolbeck and Hanson and the Public Utilities Commission staff for convening this hearing tonight.

My name is Brett Koenecke. I'm a lawyer from Pierre, and I represent TransCanada Keystone Pipeline in

this proceeding. We look forward very much to giving you a short presentation about the project and then engaging with you in a dialogue about it, answering your questions and listening to the comments which you have to offer to the Commissioners and to us at the same time. We very much appreciate your turning out tonight and look forward to sharing that information with you.

With me tonight seated right to my left is Robert Jones, the vice president of TransCanada for the Keystone Pipeline Project. John Phillips next to him is a pipeline engineer from Houston, Texas. And next to him is Jim White, also a TransCanada representative.

Behind me are a number of subject matter experts, both TransCanada employees and contractors, who are here to answer intricate-level questions that you might have about any facet of the project. And we'll do our best to provide you with information that will help you make up your minds about the Keystone Pipeline Project.

With that, I'll turn it over to Mr. Jones, and we'll begin our presentation.

MR. JONES: Good evening. I'd just like to do a test. Can you hear me clearly back there? No feedback issues?

Good evening. Thank you, Commissioner Johnson,

Commissioner Kolbeck, Commissioner Hanson, ladies and gentlemen. My name is Robert Jones. I'm the vice president of the Keystone Pipelines. We are here today to present information regarding the Keystone XL Pipeline Project and to listen to your comments and to answer your questions. Before I do that, I would like to acknowledge and recognize that many of you have concerns about the construction and operation of a crude oil pipeline and the potential effect it may have on your land.

I'd like to provide you with two commitments. The Keystone XL Pipeline will be designed, constructed, and operated safely and in an environmentally-responsible manner.

It is our commitment to treat landowners with fairness and with respect.

Now let me tell you about TransCanada and the project.

Who are we? Who is TransCanada? Well, we are a North American energy infrastructure company with over 50 years of operating experience. TransCanada Corporation is listed on the New York Stock Exchange. We have 4,000 employees and there are approximately 1,500 employees based in the United States. Our corporate headquarters is in Calgary, and our U.S. headquarters is in Houston.

At TransCanada we provide reliable supplies of

energy across this continent, and we are proud that millions of North Americans depend on us every day for their energy needs.

Now there are two logos on this slide that we are very proud of. Last September TransCanada was named to the Dow Jones Sustainable World Index for the seventh year in a row. And for the third consecutive year TransCanada has been recognized as one of the global 100 most sustainable corporations. These programs rank companies from around the world based on their environmental record and other key factors including relationships with communities and with other stakeholders.

This map gives you a look at a geographical reach of TransCanada's assets. We operate more than 40,000 miles of pipeline assets either wholly owned or in partnership with others. We also operate a growing fleet of power generation, that being wind, hydropower, nuclear, natural gas, power generation. We also supply electrical power throughout the United States and Canada. We are an energy infrastructure company with operations in Canada, United States, and Mexico. And we have ongoing relationships with over 40,000 landowners.

Now TransCanada has been a part of South Dakota since the early 1980s as an owner of the Northern Border

Pipeline system. Now this system delivers natural gas to South Dakota and to the Midwest. We now own and operate this system and its headquarters are in Omaha, Nebraska and we have a field office in Brookings, South Dakota. Keystone's U.S. field operations will also be based in Omaha, and Keystone will have maintenance bases that are strategically located near the pipeline including a number of them in South Dakota.

So why Keystone XL? This pipeline will connect the world's second largest oil reserve with the world's largest refined market. Venezuela and Middle Eastern countries, six of the seven which are the top 10 holding oil reserves in the world, are not friendly trading partners with the United States so it's easy to see why Canada is increasingly important as a supplier of energy to the United States.

Canada is the leading supplier of oil to the U.S. Canada supplies about 2.2 million barrels of the 20 million barrels consumed in the U.S. every day. Canadian oil is growing in supply, and it's growing as a supply source for the United States. Canada is the United States' largest trading partner, and we certainly are a secure and reliable trading partner.

Canadian oil provides an opportunity to replace the oil from the Middle East, from Mexico, and from

Venezuela and also replace declining U.S. production.

So this map geographically represents refineries. Refineries along the Gulf Coast represent 50 percent of the total U.S. refining capacity. These Gulf Coast refiners are generally served by offshore supplies from either the Middle East or Venezuela or Mexico, and they come by supertankers. These shipments are subject to weather disruptions like Hurricanes Rita and Katrina and other production disruptions. But these are the refineries that produce the gasoline and the diesel and the lube oils and fertilizers and other products that each of us use every day. And most of the products from their refineries is transported to South Dakota via pipeline from either the Gulf Coast refineries or from Cushing area refineries.

The Keystone XL Pipeline will start with an initial capacity of about 700,000 barrels per day, and it will be expandable to about 900,000 barrels per day. It will be operated as an integrated part of the Keystone Pipeline system. The maximum nominal capacity will be 1.5 million barrels per day.

Now the need for this pipeline is demonstrated by the long-term commitments. U.S. refiners and marketers have executed binding contracts of 910,000 barrels per day for an average term of 18 years.

The Keystone XL Pipeline is estimated to cost $7 billion and with the $5 billion of the Keystone Project, the combined project is $12 billion.

Now in terms of timing the Keystone Project commenced construction last year in 2008 and the first phase will be built -- completion of the first phase will be done in 2009. And it will go in service to serve refineries in southern Illinois by the end of the year.

We'll complete the Keystone Cushing extension by late 2010 to supply the refineries in the Cushing, Oklahoma area. Now pending regulatory approvals the Keystone XL Pipeline Project will commence construction in South Dakota in 2011 and 2012.

Now here's a map showing the route in South Dakota. The pipeline will pass through portions of Harding, Butte, Perkins, Meade, Pennington, Haakon, Jones, Lyman, and Tripp Counties. The capital cost of the Keystone XL Pipeline in South Dakota is $921 million. The pipeline is approximately 313 miles in length in South Dakota, and the diameter is 36 inch. An example of the pipe can be found as you came in the room.

Now there will be seven pump stations in the state that will keep the oil flowing through the line. There will also be six main line block and check valves in addition to those pump stations.

Now Dennis Calhoun, our Keystone XL land manager. Dennis, do you want to just wave? He's here and he'll be available for those of you who are interested in looking at detailed route maps.

Now pipelines are subjected to significant federal and state review, regulatory reviews. On the federal side the Department of State will review Keystone's Application for a presidential permit as it needs to cross an international boundary.

Now the Department of State is also the lead agency under the National Environmental Policy Act or NEPA. Now there's a dozen or more federal agencies that will also review the project. A few examples are the Corps of Engineers, Fish and Wildlife Service, Department of Transportation, and the Bureau of Land Management.

Now the South Dakota Public Utilities Commission has siting authority to review this project. But in addition, the project will be reviewed by other state agencies. They include the South Dakota Department of Environment and Natural Resources or the DENR, and the South Dakota State Historic Society.

Now this map shows the more than 1.3 million miles of existing oil pipelines and gas pipelines in the United States. But we tend not to notice these pipelines once they're in the ground. Pipelines deliver nearly all

the natural gas and nearly all of the gasoline and the diesel that we use in the U.S. and here in South Dakota.

The reason is that pipelines are the safest and most efficient mode of transportation. Now interstate pipelines are operated under federal regulations. And within the Department of Transportation the Pipeline Hazardous Materials Safety Administration or PHMSA regulates pipeline safety. The PHMSA office for South Dakota is based in Kansas City.

Now in addition to helping U.S. demand for oil, the Keystone XL will deliver local benefits to South Dakota. We estimate approximately 20 to $30 million will be directly injected into the local economy. Pipeline and pump station contractors will purchase food, lodging, construction consumables, and other supplies.

Keystone will be the largest private construction project in South Dakota. The workforce is estimated to be about 1,200 workers per year in 2011 and 2012. But by far the largest benefit to South Dakota will be the property tax revenue. It will be collected every year by 9 counties and 13 school districts the pipeline will traverse. We estimate that the first year of property tax revenues in South Dakota will be $10.3 million. And the state aid to education payments are estimated to be reduced by $5.2 million per year. There

will be a significant reduction in tax burden benefiting all local taxpayers. Now another benefit will be the reinforcement of local co-ops' electrical grid infrastructure.

Route selection. It's a multistep process. First we needed to identify the project objectives. For the Keystone XL project they were to transport Canadian oil to the Gulf Coast. So we needed to look at the most direct route. From Hardisty, Alberta to Steele City, Nebraska.

Secondly, we needed to identify some major control points. One of them was the entry point into the United States, the Ft. Peck Reservoir, the Charles Russell National Wildlife Refuge, and the connection to Steele City to combine with the Keystone systems. Once we had the project objectives and the major control points defined, we had what they call a study area.

We collected data and we solicited input from various agencies, the public, and we did field surveys. Once we had all the data identified we determined constraints such as environmentally-sensitive areas, the local terrain, and cultural features.

The study areas show that there were no existing parallel northwest-southeast infrastructure like existing oil and gas pipelines or power lines. We also developed

and assessed various alternatives. Additional input and route refinements may occur as a result of further studies and field work and further regulatory review.

We developed a comprehensive construction mitigation and reclamation plan to minimize environmental impacts based on industry best practices. There are a number of agencies that will review and stipulate the environmental protection measures. The Department of State and other federal agencies will attach environmental mitigation conditions to minimize these impacts. The PUC and state agencies will also identify additional environmental mitigation concerns. Keystone will minimize the impact of the project on the environment through the use of these construction and restoration measures.

Now I'll ask John Phillips who oversees engineering and construction to talk about the pipeline, pipeline construction, and the easement necessary for construction.

John.

MR. PHILLIPS: Thanks, Robert. To construct and operate the pipeline Keystone will negotiate with landowners for a 50-foot-wide permanent easement, as well as an additional 60 feet of temporary construction work space. Landowners will be able to ranch and farm over

the permanent easement after construction. Some areas such as stream, road, and railroad crossings, as well as rough and hilly terrain may require some additional temporary work space to safely complete construction.

In addition, Keystone will obtain additional rights for access roads and the temporary work space reverts back to the landowner after construction.

In South Dakota the project is divided into spreads which are about 80 to 95 miles in length, a length which can be constructed in a single construction season. The pipeline is constructed like an assembly line, made up of separate crews, each with a different task. Over two years a total of about 2,500 construction workers will be spread over the length of the pipeline in the state. 500, 600 construction personnel will work on each spread. The work will progress at about a mile to mile and a half per day per each crew on the spread.

After the right of way has been cleared and graded, the topsoil is stripped from the right of way as shown on the right and segregated away from the ditch spoils which is shown on the left in order to prevent mixing.

Pipe is delivered by train to rail sitings, unloaded, and trucked to pipe yards adjacent to the right of way. The pipe in 80-foot lengths is loaded on to

trucks at the pipe yard, delivered and strung along the right of way and bent to conform to the contour of the ditch.

The ditch is dug using a wheel ditching machine or a backhoe. The ditch spoils are separated from the topsoil to prevent mixing.

The pipe is welded together using automatic mechanized or manual welding process. Every weld is inspected using an ultrasonic inspection tool or radiography to ensure that it meets quality requirements.

The weld areas are sandblasted and coated, and the pipe is inspected to ensure its integrity before it's lowered into the ditch. The pipe's lowered into the ditch in segments, and the segments are welded together at tie-in points.

In areas of significant rock, the pipe is padded with select material, and then the ditch is backfilled with the ditch spoils.

After the contours have been restored to the original grade, the area's loosened to reduce compaction, the topsoil is spread back across the right of way, and the area is reseeded with specified seed mixes.

Prior to digging, in compliance with the state law we contact South Dakota One Call who identifies the location of existing utilities that are buried. These

existing utilities will often provide an on-site representative to inspect during excavation as Keystone will when you call after construction.

The pipe is fitted with test heads, filled with water, and hydrostatically tested to 125 percent of operating pressure to comply with code requirements. In addition, the pipe is internally inspected with a device called a pig that is used to inspect the pipe from the inside for dents and ovality.

Although construction will disturb your land, we will take great care to restore the land as close as possible to its preconstruction condition.

We'll go to Robert for the next slide. Robert.

MR. JONES: Thanks, John. Test.

Keystone will meet or exceed all applicable codes and regulations. We talked about -- we talked previously about regulatory reviews that are associated with this proposal. There are a separate set of regulations and requirements and industry standards that apply to the design of a pipeline. And they help ensure pipeline safety and integrity for as long as the pipe is in operation. Industry standards reflect the knowledge gained through more than 100 years of experience, pipeline experience, in North America. Regulations and standards are intended to ensure protection of the

public, protection of the environment, and to prevent pipeline failures.

Now Keystone XL will use state-of-the-art safety features. For example, regulations require 2 and a half feet depth of cover. The Keystone XL will be constructed with 4 feet depth of cover. Now deeper depth of cover minimizes the risk that a pipeline could be accidentally struck by a third party. Although pipeline failures are rare, when it has occurred, it is third-party damage that has been the leading cause.

Now at TransCanada we have developed a specification for high-strength steel pipe, and that exceeds the existing standard for the fabrication of large-diameter pipelines. Now TransCanada's specification for external pipe protective coating is put -- a coating called fusion bond epoxy. This corrosion-preventing coating has virtually eliminated external corrosion as a source of failures in pipelines in the more than 29 years that TransCanada has been using fusion bond epoxy coating. We have never had a failure due to corrosion.

Cathodic protection is in addition to the protective coating, and that is to protect the pipe in case the coating is damaged after it's backfilled.

Now we'll also install markers at road

crossings, and we'll also bury warning tape in the ground when we cross a utility. And that's an additional warning to these utilities which cross the pipeline.

There is also isolation valves that are strategically located to protect the environment in the event of a release.

Now safety features associated with the construction of the pipeline include many of the aspects that John talked about. So let's start at the beginning. Keystone will solicit pipe bids from mills that have only met our high quality standards. We supply direct oversight at the steel mill and in the pipe mill during the fabrication process of the pipe. And then during construction all the welds are checked by a qualified x-ray or ultrasonic technician.

There are over 40 inspectors that monitor the various aspects of construction of the pipeline. Now before the pipeline's lowered into the trench the coating is checked for its integrity. And after the pipe is lowered in and the ditch is backfilled, the entire pipe is filled with water and tested to 125 percent of its operating pressure. Now we inspect the pipe internally with what is called a caliper pig to ensure it meets specifications.

Now throughout this process land agents will be

available during construction to keep the lines of communication open so you're aware of all of these construction activities.

Now the entire pipeline system is monitored 24 hours a day, 365 days a year. It's monitored by highly trained, qualified employees at a computerized control center. We have a backup control center that provides redundant oversight. The control center is also equipped with dual communication lines. These systems are satellite based. We also have multiple leak detections.

Now Keystone has a pipeline integrity management program that maintains the quality of the pipe throughout its life. Keystone also has a damage prevention program that includes the participation in South Dakota One Call.

Now aerial surveillance or line patrol will occur 26 times a year and is not to exceed three weeks.

Now in the unlikely event of a release, Keystone will implement the emergency response plan. The plan or the program is to protect the safety of the public, the environment, to minimize damage to property and company operations.

Now the emergency response program will be submitted to PHMSA and the South Dakota department of energy and natural resources. Keystone's public awareness program will communicate our emergency response

program to stakeholders such as your community first responders. Keystone employees and contractors will be trained as first responders to address the emergencies -- any emergency.

Keystone will work with community first responders so -- such as local law enforcement and fire departments to be aware of our role and our capabilities and that they are to address public safety and to secure the site.

Keystone's commitment is to design, construct, and operate a safe pipeline, to build and operate it in a socially and environmentally responsible manner, to meet or exceed industry and government standards, to consult with stakeholders. Keystone will treat landowners with respect and fairness.

We look forward to being a part of your community for generations and for being a good neighbor.

Keystone will continue to operate our project website. We have an e-mail address. We have toll-free numbers because we want to receive and respond to your inquiries and to foster ongoing consultation. You can find the toll-free information and the project website on the back of any of the Keystone XL brochures which were sitting outside as you came in -- outside the room as you came in the building.

Dennis Calhoun, as I said, is also here, and he's available to talk to landowners.

I want to thank you very much for listening to me and then listening to us and coming here tonight.

CHAIRMAN JOHNSON: Thank you very much to the Applicant. At this point we'll start off with questions. If you've got a question, raise your hand and we'll have one of the mikes come on over. You know, we're happy to have you -- try to keep it to one question to start with. Then they can answer your question. Then we can come back to you for a follow-up or two. We don't mind that. We want to make sure we spread it around so everybody's got an opportunity to ask questions, but try not to ask four or five in a long line. It makes it a little tough for the Applicant to respond.

So with that, we've got a hand up right here in row no. 2. And start by stating your name and where you live.

MS. LAMBERT: Sylvia Lambert from Interior, South Dakota. I have a question -- I have two questions. One, doesn't Canada already have refineries so that couldn't they refine it there seeing that this tar sands bitumen is much cruder than even the crudest oil that we do already have?

MR. JONES: Thank you for your question. I

think there were two questions I'll try and answer. The first one is why isn't this product refined in Canada or used in Canada. And the second one was a question around the tar sands or the oil sands. So let me answer the first one.

Canada is a country of about one-tenth the population of the United States, and in Alberta there's already a sufficient number of refineries. There is also, you know, 20 million barrels of refining capacity in the United States and about 15 million barrels -- between 12 and 15 million barrels every day is imported from other countries, of which 2.2 million barrels are imported from Canada.

Now the Keystone Pipeline can move virtually all types of crude oil, any kind of liquid product. It's designed to move light crudes and heavy crudes. Now there's a lot of misinformation with regards to the oil sands. There is no sand left in the oil. So when they -- when they extract the oil from the ground, they need to remove the sand and they can do that through two processes. There's a mining process, and there's a drilling process.

Now either way we have a certain specification for the oil. It's the same specification that every oil field in every country has to do to get into these

refineries. So the oil in Canada, once it comes into this pipeline, is no different than the same specification of the oil that you would find in North Dakota or in the Rockies or in California or in Oklahoma.

It is also obviously compatible with the oil that they're getting from Mexico, Venezuela, and Saudi Arabia.

MS. LAMBERT: You mean the sand is taken out there in Canada?

MR. JONES: That's correct.

MS. LAMBERT: The other question that I have, I've heard that the pipe that you're using -- where is that made?

MR. JONES: So we have not ordered the pipe for this project, but there's been a lot of news lately about the pipe that we acquired for the project that's under construction today.

So when we first started building the Keystone Pipeline that's being built in the eastern side of the state, we started that project in 2005. And we went out to bid in 2006. And I don't know about you guys, but the economy was a lot better in 2006 than it is today. And when we went out for bids there were 12 qualified pipe mills in the world and only four in the United States. All the steel mills and all the pipe mills in the

United States and in Canada were running at full capacity.

So we -- when we went out to bid we were able to get about half of the pipe from North American pipe mills and the other half we had to go offshore. And our choices were European mills and Asian mills. And the company that could produce the best quality pipe was a company called Welspun. Now this company, we've had auditors. We've had a number of other pipeline companies use them. And so that's the pipe that you've seen in the news lately.

The pipe we're going to use for this project will more than likely come from North America. And the reason is -- and not that we're still going to go to bid for the 12 around the world because we want to make sure we have the best quality pipe for this project and those 12 mills can do it.

But what's happened is that since 2006-2007, three new pipe mills have been built in the United States, one of them by that company in India. And so we expect that the majority of the pipe this time will definitely come from North America.

CHAIRMAN JOHNSON: All right. Hand up right over there.

MR. NELSON: Mark Nelson from Philip. My

question is in the event that there should be leakage, how do you handle the containment and then the reclamation and who would be liable for the land damage and loss of use of the land?

MR. JONES: Mr. Nelson, I believe there were three questions in there and I want to make sure I get all of them answered properly. One of them was containment, one was how we're going to clean it up, and the other was liability.

So with regards to containment I'll ask Mr. Hayes first to answer that question.

MR. HAYES: Sorry about that. I can't see. When I turned 50 I need glasses. So I'll come over here. My name is John Hayes, and I'm a consultant from TransCanada specializing in emergency response. Is that coming through okay? Okay. I'll start over.

My name is John Hayes, and I'm a consultant with TransCanada with specialization in emergency response. The question was on containment. And that's a big question. I could talk about that for a real, real long time.

What I would like to say, as Mr. Jones showed on a slide, is what I have developed is a very comprehensive emergency response program and that program has really four broad components. The first one is the plan itself.

And we've gone to great lengths to develop a plan that covers all kinds of things that you might expect of any emergency response plan, certainly including containment.

The plan also is very unique in that it is housed on an external server, and it's up to date all the time so we have the best available technology in the plan all the time 24 hours a day, 365. There is a very specialized section on containment. In that plan we have identified containment on any type of emergency in any type of situation.

So, for example, we cover leaks on land, on water, on streams, in school yards, in graveyards, anywhere at all, under ice, on ice, and we've developed very specific procedures on how to contain and clean up oil in that regard. I didn't know where the question came. Did that answer it for now?

MR. NELSON: Yes.

MR. HAYES: Thank you.

MR. JONES: And the second question was on reclamation?

MS. TILLQUIST: My name is Heidi Tillquist. I'm also a contractor for TransCanada. Cleanup of an oil spill is really site specific. There's a number of different ways that it can be cleaned up. They range from excavating the soil, removing it. They can burn it

on site, they can treat it on site adding fertilizer. They can let it naturally attenuate.

It's not a decision that's going to be made solely by TransCanada. What happens in that case is that there -- if it was here in South Dakota, Keystone is going to be working and coordinating with the South Dakota DENR to try to decide what's the best method to address the issue.

There's also cleanup standards. They're going to look at, you know, how much needs to be cleaned up in order to provide safety for both the human environment and make sure the vegetation grows back. There's a multiple number of components that they will look at. But it's not done in isolation just determined by Keystone. It will be in coordination with the state and sometimes federal agencies.

MR. JONES: And then I think the last question was on liability; correct?

MR. WHITE: Thanks. My name is Jim White. I'm a lawyer with TransCanada. The question with respect to liability, the easement document that TransCanada is taking out to landowners across the state has a lot of detailed specifications about liability. But essentially it can be summarized as Keystone is responsible and liable for incidents that occur unless those incidents

are the result of negligence, willful misconduct, or intentional action on the part of another party. So that's -- I think that's a fair summary of the liability provisions that will be in our easement.

MR. JONES: I just want to add that no matter what, by state law and by federal law, no questions asked, we clean up the mess. So if it does happen and there's a release, TransCanada Keystone, we're responsible to clean it up.

CHAIRMAN JOHNSON: I believe we had a question over here.

MR. PROKOP: Yes, my name is Veryl Prokop, Kadoka. I'm the director for the West River Lyman Jones Rural Water System. That's Haakon, Jackson County, and Jones County. And I have with us tonight our manager, Dave Fitzgerald.

We've had a lot of questions concerning the safety of the water. You'll be crossing our core lines. You'll be crossing our distribution lines. And, of course, we are very willing to work with you, but could you put the people's mind at ease as to like -- well, one question: Who's going to pay for these inspectors, and how far are you going to bury them? What are you going to do with our pipes that are already in there? Can you give us kind of an overview of that?

MR. JONES: So if I understand the questions, I just want to make sure we get them all. So the first of all was who's going to pay for the inspectors. Now I'm assuming you're talking about inspection of the various pipeline crews, or the inspection when we cross the water utilities?

MR. PROKOP: Well, it's going to be both. We're going to have to be out there when you cross our lines and then when we want to put in new lines you're going to have to be out there and we have to come up with a working agreement on this, see.

MR. JONES: Yes. That's correct. So actually I'm going to have John talk about the utility agreements and also our construction practices when we go to cross water utilities.

MR. PHILLIPS: What we'd like to do is exactly what you said. We'd like to work with you. Because, you know, the freeze line -- what we'd like to do is work with you to reimburse you to lower your water lines to a depth below where our pipeline's going to be. We'll reimburse for that.

What we'd also like to do is if you have future plans that cross the easement, let's put a piece of casing in there. If you have a pretty good idea what size water line it might be, let's put a piece of casing

in across the right of way, figure out where it's going to be and then come back that way. We're both taken care of. You're not having to dig over the top of the pipe later, and you can work with the casing.

We'll do all of this through some utility crossing agreements. The land office in Rapid City working with Dennis Calhoun's folks will get with you and work out these arrangements. We'll work out the reimbursement agreements and work with you, determine where these lines need to be lowered, get them down to a depth below where we're going to be with enough adequate separation. And then that way when we come through to do construction, your water lines are not in a place where they're going to be a problem.

MR. PROKOP: Another question was does this pipeline generate a lot of heat as that oil's going through it?

MR. JONES: I'd like to get our pipeline engineer to answer that question.

MS. KOTHARI: I am Meera Kothari, pipeline engineer with TransCanada. The oil inside of the pipeline is not heated when it enters the pipeline. However, as it travels through the pipeline it does heat up due to friction as it moves along the pipeline. Presently we are conducting a temperature study of the

pipeline, and we can expect to see the oil inside the pipeline in South Dakota to be anywhere between 89 F and 120 F. The temperature of the oil is dependent on a number of factors: The time of the year, the viscosity of the product, and the flow rate.

On Keystone phase 1 in the eastern part of the state we conducted a similar study, and the results of that study were that there were no significant impacts to crops as a result of the temperature in the pipeline. And we expect the same results for this particular pipeline. However, in the case that there is documented damage for crops, Keystone will reimburse.

MR. PROKOP: Thank you very much. Jake, do you have any questions? We will work with you as good as we can, people, okay?

CHAIRMAN JOHNSON: Go ahead, Mr. Jones.

MR. JONES: I just want to add one more fact about the temperature. The depth of cover really gives us quite a protection when it comes to crop impacts because it's the 4 foot depth of cover, it's an awful long ways for the temperature to cause any problems. So I just wanted to add that fact. Most pipelines are only 2 and a half feet deep.

CHAIRMAN JOHNSON: Okay. We'll go right here and then up there.

MR. SEAMANS: Okay. I'm Paul Seamans from southeast of Draper. And I'd like to know what is the expected life of the pipeline and after being decommissioned will the pipeline be removed or left in place and will this abandoned pipeline create any safety hazards in future years?

MR. JONES: Thank you, Mr. Seamans. Excellent question. First of all, with regard to the life of the pipeline. We're going to design and operate this pipeline so it virtually can last for generations. Pipelines now are almost -- can be designed and built to operate safely for well over 100 years.

Now the fact that this is the world's largest refining center and that it's connected to the second largest oil reserve, we anticipate that the pipeline will be used and useful for generations. However, what happens is if -- if there becomes a reason to not use it for oil transportation, we can use it for other means.

So, for example, if you look at the pipeline that we're converting in Canada, it was originally built in 1957 for gas service and now in 2009 we're converting it for crude oil service. So once a pipeline is in the ground it does have the usefulness if its purpose needs to change to do so.

When it comes to the fact that you hit the end

of the life, there is no other application you can consider, we -- you know, this is going to be many, many generations from now. I can commit to you that we will follow whatever the laws of the state and the federal regulations are. And because it's going to be down the road, you know, we would only speculate what they might be.

CHAIRMAN JOHNSON: All right. Over here.

MR. EVANS: Yeah. Bill Evans from Rapid City. As you may have become aware, western South Dakota's sort of a treasure trove for paleontologists. I'm wondering what sort of supervision is in place in case you do uncover some kind of fossil bed and what kind of guardianship you have for that.

MR. JONES: Thank you, sir, and ask Jon to take that question.

MR. SCHMIDT: Thanks for the question. Jon Schmidt, also a contractor with TransCanada.

There are surveys that were undertaken on federal and state lands for paleontological resources and TransCanada has made a commitment to have inspection in place during construction if any kind of paleontological find is discovered. Our understanding in South Dakota State law is that that belongs to the landowner and we'll work with them to deal with those finds that are found on

their property.

CHAIRMAN JOHNSON: Other questions? All the way at the top there. That fellow right there too. And then, Ms. Semmler, we've got black baseball cap and maroon shirt right there.

MR. KILNESS: I'm Robin Kilness from Meade County. My question is on the -- where the pipeline is going and would be more of an economical problem for us. And I think with Dennis I have talked to earlier but we haven't got anything resolved.

The pipeline, I did not want it to go through my buffalo grass in my calving pastures because the way this year has been would have been a total disaster. We couldn't cross it. The pipeline was supposed to -- or the proposed route, the pipeline was supposed to go right through the middle of my pastures between my water and my calving barns.

And anyway, as of right now I don't know if anything has been finalized on that. But I've given them two alternate routes. They could go either about a quarter of a mile either direction and I -- I mean, like with the moisture this year if they tear up 110 feet going through my wind breaks and calving pastures, that would be devastating on little calf loss. Because I already on sod we've got ruts over a foot deep trying to

get through stuff as is.

MR. PHILLIPS: You're on the right -- I'm sorry. You're on the right path as far as talking to Dennis. But what we'll do, we'll work with you on your individual situation, take a look at -- we can send some folks out to take a look at the routing, look and see if there might be some other alternatives that might work, work with the land folks, which it sounds like you're already talking to them?

MR. KILNESS: Yeah. I have -- they have been out, and I have shown different ways but as of now I don't know if anything has been changed yet or not.

MR. PHILLIPS: All right. Well, we're very much still working on some of the different things with the route. It's an ongoing process. Some of our engineering folks have just gotten back into the South Dakota offices, and we're going to be out and we'll be working with you and working through Dennis's people to take a look at your particular situation and follow up on it. But we'll work with you one on one for your particular situation.

MR. KILNESS: One other thing that I wondered about, when you fly with the helicopters. That was the other problem I have seen. They fly -- there's a ridge that they fly over and they're low enough that they do

split the cattle terrible and I'd hate to be out on a green horse when they fly over.

MR. PHILLIPS: I understand. I know we've -- I know we've made -- we took some contractors out to take a look at the work back in late January, and if we -- if we caused a problem with that, my apologies. We were -- you know, there's some places along the route that are awful hard to see from the truck or from the car and the helicopter is about the best way to do it.

CHAIRMAN JOHNSON: All right, sir.

MR. HOSTUTLER: I'm Glen Hostutler of Midland. You're going to cross two private well lines of ours, and I wonder if you're going to sleeve them. And for future water lines the first meeting I came to in this building with the pipeline I had a private conversation with a man concerning future water lines, and he told me that they would put in a sleeve every quarter of a mile so that we could put in future lines without having to bore under your line.

MR. PHILLIPS: Okay. As far as the rural water lines we're going to cross to start with --

MR. HOSTUTLER: These are private.

MR. PHILLIPS: Private. We can put a sleeve in. In fact, I'd like to put a sleeve in. That way, if you want to come back and change it out or do something

different, you don't have to dig over the pipeline to be able to do it. You can just work from the end.

And, yes, we did have some discussions. I was here actually last summer. You may have even spoken to me or maybe Dennis. He was here too. But what we've committed to is we'll put some sleeves in across the right of way where you want to run your private water. Maybe out to other pastures or something like that. Yes, we'll do that. We'll do that. We're committed to do that.

MR. HOSTUTLER: What material will these sleeves be made out of?

MR. PHILLIPS: Well, typically we'd be talking about some sort of PVC pipe.

CHAIRMAN JOHNSON: All right. Other questions? Stick with questions for a little bit and then we'll move to comments here.

MR. SEAMANS: Paul Seamans from Draper. According to the newspapers, TransCanada is attempting to use a thinner-walled pipe on this project than presently specified. What is the reasoning behind this?

MR. JONES: Thank you, sir, for that question because it gives us an opportunity to clear up some misrepresentations with regards to the waiver. So I'll ask our pipeline engineer to give you a more detailed

response.

MS. KOTHARI: Thanks. Meera Kothari, TransCanada engineer. Under the Pipeline Safety Act operators are allowed to apply to design, construct, and operate pipelines at 80 percent of the specified minimum yield strength. The current standard for liquid pipelines is 72 percent of that specified minimum yield strength.

The practice has been in place to design the pipeline to 80 percent in Canada for over 30 years now on the liquid and the natural gas side. Most recently in late 2008 the federal standard for natural gas pipelines in the U.S. has been changed to the 80 percent standard for sheer size or volume of the applications coming through to PHMSA. For liquid pipelines it's still on a case-by-case basis as far as the Application is concerned. So that's a little bit of background to that.

Specifically related to pipeline safety, pipeline safety is not solely a function of the pipeline wall thickness. It's the sum of a number of different elements that comprise total pipeline safety. And during the presentation we heard some of the design features for the pipeline such as the 4 foot depth of cover burial, the inspection, when we purchase components from different fabricators, the inspection on site during

construction, the hydrostatic tests, the inspection of the wells, and really the steel quality and the strength of the steel.

So there's a lot of elements that have to make up that pipeline safety and not necessarily strictly dependent on the wall thickness of the pipe.

MR. SEAMANS: Will this -- will the same size thickness pipeline be used in, say, Philip as in a bigger city or something, or are there different pipeline thicknesses?

MS. KOTHARI: So the pipeline thicknesses on different parts of the pipeline are dependent on specific constructibility items. For instance, if we were crossing a road or boring under a river, the pipe thickness would be different than what would be used in standard main line construction strictly due to the stresses on the pipe.

It's also dependent on what the applicable threats are. If you're in a more populated city there may be more heavily or more frequent construction, more frequent excavation, more utility construction. Therefore, our pipeline would be at risk from third party strikes, which is probably the most common mode of failure for new pipelines today. So that would be the reason that we would look at putting in a thicker-wall

pipe.

For particular areas from a rural standpoint where there's ranching and farming, the real concern for the pipeline is can you safely farm or ranch over that pipeline. And so we look at what that applicable threat is, and we design the pipeline accordingly to ensure that that concern is addressed.

CHAIRMAN JOHNSON: Go ahead, ma'am.

MS. LAMBERT: Sylvia again. What are South Dakota taxpayers giving to TransCanada? And my other question is what do you folks do about wind energy?

MR. JONES: So I'll ask Bill to talk about taxes, and I can talk about wind. We do -- we do construct wind-generation facilities. In fact, the largest wind-generation facility proposed in North America is being built by TransCanada in Quebec. So we certainly are big proponents of wind generation. Now Bill.

MR. TAYLOR: Thanks. My name is Bill Taylor. I'm from Sioux Falls. And I did the tax work for TransCanada. The question is what will TransCanada pay in ad valorem property taxes in South Dakota? The answer is in the first year the pipeline is completed, assuming nothing changes from the current tax situation, TransCanada will pay about $10.3 million in property

taxes spread among nine counties, 13 school districts. I'll tell you how we got to that number.

I had to have someplace to start, and the most recent, complete numbers that are available in South Dakota are for the 2008 tax year. So we operated on this premise. Since we knew what the budgets were for all the counties in 2008 and what the budgets were for all the school districts in 2008, we knew what the assessed valuation of all the property is in every one of those districts, we pretended the pipeline was completed and operating for 2008. And that 10,000 -- $10,366,000 number is as if the pipeline were operating in 2008. So if the -- if the tax structure changes, which the legislature can do and sometimes does do every year, and if there's a round of inflation or deflation, depending on what the economy does, those numbers could change up and down.

We also know that effective next year, effective 2009 tax year, the way agricultural property is assessed is going to change in South Dakota. The Department of Revenue hasn't developed the regulations yet to tell us how agricultural values are going to be measured. I've been in the tax business a long time. I think agricultural property tax values are going to go down, which means the pipeline will pay more taxes relative to

the agricultural property tax.

MS. LAMBERT: My question is how are South Dakota taxpayers helping you folks?

MR. JONES: I'm not aware of any direct payment coming from TransCanada -- to TransCanada from South Dakota taxpayers.

MS. LAMBERT: Well, maybe in some other way of encouragement?

MR. JONES: No. Sorry. I'm not sure I understand your question.

MS. LAMBERT: I know that South Dakota tends to help businesses coming into the state in various ways, and I was wondering how they were helping you folks come into the state.

MR. JONES: I'm not aware of any direct compensation coming from the government to TransCanada. It's just not happening. Really the benefits to South Dakota as we described will be in the ad valorem property tax.

MR. TSITRIAN: John Tsitrian, Rapid City. How many private landowners will you be negotiating with for easement rights, and how far along into that process are you now?

MR. JONES: An excellent question. I know for the first phase of Keystone we had approximately 500

landowners, and we were successful with regards to all of them. Maybe John, do you know?

MR. PHILLIPS: I want to say -- I'm not exactly sure but I think it's somewhere -- I'm not exactly sure but I think it's in the neighborhood of 2,400, somewhere in that -- for the whole pipeline. And as far as I believe that, you know, there have been some contacts made, and I believe just recently that some of the easements have been brought out to landowners and those types of discussions have just recently started.

MR. TSITRIAN: So at this point you don't actually have anything in hand in terms of easements that you can say you've secured?

MR. PHILLIPS: We do have some, yes. And I believe that process has just been ongoing for the last couple of weeks, so just recently.

MR. TSITRIAN: Out of the 2,400, approximately what percent?

MR. JONES: We've just started so we haven't even commenced the process here in South Dakota.

MR. TSITRIAN: Do you anticipate any problems from recalcitrant landowners, some negotiating difficulties, some people holding out for better money, any issues like that?

MR. JONES: You know, if I was to look at

TransCanada's experience, we've got over 40,000 landowners. Certainly our intent is to negotiate easements with them all. There's always a small percentage -- a lot of times there's trouble with the estate, those kind of things. But our goal is to negotiate an easement with all the landowners.

CHAIRMAN JOHNSON: Go ahead, sir.

MR. LOUDER: Merrill Louder from Jones County. I'm a Commissioner. These boys tell us we're going to get $1.3 million a year and our auditor called Pierre's tax outfit and they said about 80,000. I'd like to have you explain the difference.

MR. TAYLOR: Well, I can't speak for how the Department of Revenue may have figured it out, but I'll tell you what my numbers are. Jones County, the county itself on the county tax levy is going to receive $277,350. That's based on if everything were in place in 2008.

Jones County School District, 37-3, will pick up about $720,000 if everything were the way it was this year. So that's -- Jones County School District and Jones County don't have the same common boundaries. Tell me what other school districts there are in Jones County, and I'll give you those numbers. Anybody know?

MR. LOUDER: I think Midland got a little chunk

of it but not very much. It's just one school district.

MR. TAYLOR: I've got -- I've got Lyman 42-1. I've got Jones County 37-3, and Haakon 27-1, and Kadoka 35-2. So I don't think Midland -- I don't think the Midland School District's in the list. But I've got to tell you that when we did the -- when we worked out the school district lists, there's one little corner in there that if we're a quarter of a mile either way it changes it slightly but the dollar amount that it changes it is like 10, 15,000 bucks.

MR. EVANS: I'm Bill Evans again from Rapid City. And as a continuation of Mr. Tsitrian's question here, contact with people who are using leased land, BLM land and whatnot, who is the contact concerning the proposed route with and how do we get access to these high-resolution route aerial shots that you have down here?

MR. PHILLIPS: Well, most of the contacts, the contacts have been made through the land people. Now as far as the BLM, I believe that's being handled by y'all, isn't it, John? Okay. It's also part of the land process. Yeah. So back to Dennis Calhoun and his land people. The state office is in Rapid City for South Dakota. And the maps are on the PUC website.

CHAIRMAN JOHNSON: All right. We'll go right

down there, front row, and then we'll go up top and then we'll probably take a short break. Go ahead, sir.

MR. BARTELS: Del Bartels, editor for the *Pioneer Review* newspaper here in Philip. Could you give me the exact figures for Haakon County 27-1 and for Haakon County as a county.

MR. TAYLOR: Haakon County, the county is $360,213. Haakon 27-1, $1,106,404. And I'll tell you that the school aid money is net of the reduction in state aid that results as a consequence of the construction of the pipeline.

CHAIRMAN JOHNSON: Did we get your question answered, Del?

MR. BARTELS: Thank you.

CHAIRMAN JOHNSON: Great. Then we'll go up top right there.

MR. BIERLE: My name is Kory Bierle, down by Midland. And I'm wondering from the time that you grade the right of way for the construction project and are constructing, have the hole dug and until the time the pipeline's covered up, you said you hope to get a mile of pipe in a day. What is the time frame from when you first grade the right of way until it's covered up?

MR. PHILLIPS: We're hoping to get about a mile, mile and a half per crew basically. But from start to

finish it's anywhere from six to eight weeks typically.

MR. BIERLE: Okay. Then in reference to the other gentleman's question from up here, do we talk to the land men about the timing of that six to eight weeks then? Because, you know, as he said, you know, wrong time of year it could be a very critical issue to a lot of people, you know, where the next mile and a half down the road it wouldn't make any difference.

MR. PHILLIPS: Well, when we start construction it's going to go all the way -- it will go on through. The timing will be such that when we start we'll have access to go through and work from one end to the other. We can't do it in little pieces here and there. And you work with the land folks to do -- you know, as far as things like crop damages, specialized things for your cattle if you're a rancher, work with them one on one and but when we start construction it's going to be from one end -- you know, we're going to be starting on one end and working towards the other end. And we won't be skipping from piece to piece.

MR. JONES: There is really the safety of the workers that needs to be considered here. So we're going to start construction at the front end of the spread in May and carry through the spring, summer, and fall. That's the ideal time to ensure highest productivity and

safety of the workers.

MR. PHILLIPS: And also the land folks will be working with you to let you know, communicating with you when we'll be coming in and they'll be talking to you all the way through the process. And you will have already worked out your arrangements with them on what they're going to do to take care of what your needs are one on one. But they'll be communicating with you all the way through the process and when construction's ongoing and when it gets finished and when it goes back through.

MR. BIERLE: Thank you. And also what is your standard procedure for going underneath railroad tracks and rivers?

MR. JONES: We -- the best practice, whether it's a road, a railway track, or a canal would be to do what they call a bore, which is to drill a hole. And that's also why we need to have what they call an abrasive coating to make sure that the pipe can go through that bore. If it's a large river like the Missouri River where we just crossed last year at Yankton, we did what they call a horizontal directional drill. That's where you start at one end of the bank and you drill all the way to the other side.

CHAIRMAN JOHNSON: All right then. We've been at it for about 80 minutes. Let's take a short break.

We can give our court reporter an opportunity to rest her hands a little bit. Our intention when we come back would be to take both questions and comments just in the order they come up. So we'll see you back in 10 minutes.

(A short recess is taken)

CHAIRMAN JOHNSON: All right, everybody. Thanks very much for your patience. At this time we'll look to the Applicant to make a couple of clarifications. Mr. Jones, go ahead.

MR. JONES: Thank you, Commissioner Johnson. The break gave us a great opportunity to talk to a lot of you one on one, and I want to thank you for your input.

There were three things that came up that we'd like to clarify, and it's important we respond to everyone. One of them had to do with the contractor's excise tax, and I think that was the question you were trying to ask us with regards to is the state giving you anything. Actually the state doesn't give anybody anything, but what we get to do is we -- all construction projects can apply for a credit on the contractor's excise tax. So we'll still be paying some, we'll just be paying less as all construction projects are allowed to do.

The third one had to do with the wall thickness, that it had changed. And the answer is no, it hasn't

changed. It's still the same wall thickness that we came with the first open houses. So it's still almost a half inch. I think the exact thickness is .463 inches so that hasn't changed. So I wanted to make those clarifications. The third one I'm going to get Mr. Koenecke to provide.

MR. KOENECKE: I understand there were some questions during the break over the property tax and whether that's applied to the value of the easement or something else. And the answer is the something else. It's the value of the pipe and the pump station, the pipeline that goes through South Dakota that that property tax is paid on the value of those installations and not on the value of the easement or the 50-foot-wide permanent right of way for the pipeline. I hope that clarifies some things for some of you.

It's the value of the pipe. Utilities are property taxed on the value of their installation. It's done through the office in Pierre. The values are sent out to the counties for the mill levies to be applied. But it's on the value of the pipe and the pump stations and not on the value of the 50-foot-wide strip.

CHAIRMAN JOHNSON: Okay. Thank you for those clarifications. We're going to pause and see if we've got any comments or questions from those who haven't had

an opportunity to speak yet, and then we'll come back around. Comments or questions? Right there, sir.

MR. NEVILLE: Kenny Neville with Haakon County highway department. I'm a little concerned about the thickness of the pipe. I've heard is it thicker when you go under our roads? How much thicker?

And the second question I have is to do with the restoration of our roads after you guys have all -- hauled on -- or hauling agreements. I'm very concerned about that.

MR. JONES: So with regards to the thickness of the pipe underneath roads, so the pipe wall thickness is thicker under roads and that's because we need stronger structural strength. So it is slightly different than it is -- not very much, though. It's about .6 compared to about .5.

The other question with regards to working with the different counties on restoring the roads. So we do that. We work with every county. But on top of that we have to put up a bond. So if we looked at the last project as an example, we did about 100 -- a little less than 100 miles in South Dakota last year and we had to put up a $3 million bond, and this year we're going to do about another 150 miles and we are putting up a $9 million bond. So that gives you an idea.

Now that being said, we don't anticipate any issue with those bonds because we have worked with all the counties to fix the roads.

COMMISSIONER KOLBECK: Mr. Jones, you had mentioned at the other meeting in Winner and maybe you want to give that number. What is the difference between .72 and .8 in inches?

MS. KOTHARI: The difference between the .72 and .8 in inches is 0.05 inches.

COMMISSIONER KOLBECK: 0.05?

MS. KOTHARI: That's correct.

MR. KOENECKE: Thank you.

MR. SEYMOUR: Yes. Jones County Commissioner Sam Seymour. And do you sleeve where -- under the main county highways?

MR. JONES: We don't sleeve. In fact, we really recommend not sleeving, and I'll tell you why: It's not a best practice.

So outside of third-party damage, another cause of pipeline leaks is casings. Now when we talk about casing water lines, that's PVC to PVC. But when we talk about casing a crude oil or natural gas pipeline, that's steel pipe to steel pipe. And whenever that occurs over time they end up contacting with one another. And if that happens, you end up getting a failure at that spot.

So the best practice is to use an abrasive coating and not to use casings.

We also are quite a bit deeper. When we end up boring underneath the highway we'll be, you know, 9 to 12 feet I would suggest --

MR. PHILLIPS: Yes. Usually -- and the key is the bar ditches on the sides. I think we have to be 5 foot below the bar ditches on the sides. And the abrasion coating that Robert's referring goes on top of the fusion bond epoxy corrosion coating. And this -- this is a -- this is a best practice doing these bores rather than doing casing.

MR. IVERSEN: Roy Iversen from Murdo. Last summer in August we had a meeting with some of your land agents. Mr. Calhoun was there and he probably recalls that meeting. But at that time he led us to believe that you guys already had a presidential permit in place. And during that meeting he basically told us that it was -- today is the last day that you have to decide, you know. Are these tactics or those kind of tactics, are they commonplace in your guys' business practices?

MR. JONES: Sir, I'm not sure exactly what went on in that meeting because I wasn't there. And there has been some confusion. So first of all, thank you for bringing it to my attention, and I will talk to Dennis

about it. But there is some confusion with regards to the presidential permit we received when we built Keystone phase 1. And so when we're talking about the construction that we have today, you know, we certainly do have the presidential permit. In fact, we have all our permits for construction.

If we're talking about the Keystone XL project, we don't have any of our permits. And that's why we're here today. We're applying for them all. So we are still working on all the regulatory permits for the Keystone XL project.

MR. IVERSEN: Why would your land agent lead us to believe that you had them in order for us to give them permission to survey?

MR. JONES: To provide survey access -- I'm sorry. I thought you were asking me with regards to easement. We have just started the easement optioning process now. As for survey, I think the -- you know, Dennis or whoever was talking misspoke. We were applying for our permits. We certainly hadn't received them.

MR. IVERSEN: All right. Thank you.

CHAIRMAN JOHNSON: Okay. We've got right over here.

MR. NELSON: Mark Nelson from Philip again. I had one question that -- and we don't think about it much

in this area, but what precautions has Keystone XL taken against possible terrorist acts against the pipeline and how do you train the local law enforcement to deal with them?

MR. JONES: You know, terrorist activity to our pipelines, under the Homeland Security Act they have asked pipeline operators not to post detailed route sheets and such on the internet. As for, you know, other activities, it's really following PHMSA's guidelines, so that's the federal agency and the Department of Transportation. There's no doubt that they are classified by the Homeland Security as a valuable utility, you know. And so far the only direction we've had is with regards to posting the details on the internet.

MR. HAYES: It doesn't quite reach. I'll move closer to Heidi. Sir, to answer your question, we also are developing a security response plan, and that's based on the Homeland Security guidelines. And that has been developed for Keystone already and will be just kind of added on to KXL. And it has certain things in there that are consistent with what the Homeland Security aspect of terrorist activities.

CHAIRMAN JOHNSON: Okay. We can go up there and then I know, ma'am, you've got some questions. We'll

come back.

MR. HEEB: The dollars that you guys were talking about that are going to be generated, I talked to the fellow about it and he wanted me to mention those dollars are coming back to Haakon County or are those dollars going into state funds and then Haakon County gets a portion thereof?

MR. JONES: I'll direct this question to Bill.

MR. TAYLOR: The tax dollars don't go anyplace except Haakon County. The way the system works is the Secretary of Revenue figures out what the assessed value of the pipeline is for tax purposes. Then he sends that number to the Director of Equalization in Haakon County. When your Commissioners do their budget in August and when your school board turns in its budget in August the treasurer in Haakon County figures out what the tax levies are going to be and assesses the tax levies against the landowners, the pipeline company, in Haakon County and the tax bills get paid in Haakon County. That's how the system works. So I suppose you could say the money goes to Pierre and comes back but I don't think it really does.

MR. HEEB: But what you're saying tonight, though, is 100 percent of that money stays in Haakon County. It's not taken to the state level, Sioux Falls

takes a chunk, Aberdeen takes a chunk, Watertown takes a chunk and then we get a little dab at the end.

MR. TAYLOR: I wish they would build a pipeline through Sioux Falls. I live there. Take a little burden off of us. No. The tax money that we're talking about is the ad valorem property taxes that are collected for the benefit of Haakon County for the benefit of the nine counties that the pipeline passes through and the 13 school districts.

Sioux Falls -- what you're thinking about is the state aid to education formula where the legislature says every year this is how we divide up the money that comes out of the general fund from sales tax revenue and all the other revenues. This has got nothing to do with that. This is the ad valorem property taxes payable here in these counties.

CHAIRMAN JOHNSON: Okay. We'll go right here, ma'am.

MS. LAMBERT: If I understand you correctly, you are applying for some kind of a waiver of contractor's excise taxes.

My other question is what protection does the public have from you folks in case something goes wrong or the commercial climate deteriorates and you have to -- or protection from you folks applying for bankruptcy or

some other method so that the taxpayers don't have to bail you folks out? Don't tell me have it in writing.

MR. JONES: I think the -- first of all, let me tell you a little bit about TransCanada. We are a -- we have assets of over $40 billion, as I described, all through Mexico, Canada, and the United States. We're traded on both the Toronto and the New York Stock Exchanges.

Through this economic down time we've been able to manage our A grade credit rating. And the reason is because we're a valuable utility. You know, we provide energy to North Americans every single day.

And so even if there was to be something in the future change -- I'll take your assumption. So what if we end up going bankrupt? The fundamentals are we're a utility. We need to continue to provide the services. So even when pipeline companies in the past have gone bankrupt, they continue to operate because they need to maintain the pipeline so it's safe and that it continues to provide the service to the people of the United States and Canada. So it continues to operate until the bankruptcy courts figure out how to do the payments and it carries on.

But utilities that go bankrupt continue to operate. There's no question. It has to happen.

MS. LAMBERT: Who pays?

MR. JONES: What do you mean by who pays? Sorry. There's no obligation by the state to pay. Because we continue to collect the revenue, the shippers continue to pay. Yes, that's the answer to your question. The shippers on the pipeline continue to pay.

MS. LAMBERT: And the thing about the waiver, did I understand --

CHAIRMAN JOHNSON: Ma'am, let's make sure we get the microphone to you if you're going to ask questions.

MS. LAMBERT: Your comment about the waiver, did I understand that correctly?

MR. JONES: It's not a waiver. It's a refund on the contractor excise tax, and it's basically the same refund that all construction projects work under.

MS. LAMBERT: You mentioned PVC pipe a couple times. How do you folks use that, and is that made from this tar sands crude oil?

MR. JONES: The Application, and when we describe the use of the PCV pipe is as a casing for the water lines. So water pipelines are made with PCV, and it has nothing to do with crude oil. PVC. Sorry. PVC pipe. And it's got nothing to do with transporting crude oil whatsoever.

MR. HOSTUTLER: Glen Hostutler. Back to the tax

thing. Does the value of your pumping stations and your pipeline depreciate or go down in value over the period of time, and how fast does it go down?

MR. JONES: Again, I'll have my tax expert address your question.

MR. TAYLOR: That's an interesting question. Now you've got to think about depreciation two ways. We tend to all think about depreciation in the sense of federal income tax. You buy a new piece of farm machinery and it has a usable life and it's depreciated over the usable life and you get to write that depreciation off on your federal income tax.

Ad valorem property tax is a different story. Ad valorem property tax is by the direction of the legislature. The value of the pipeline is supposed to be figured out based on three things: Its market value, the income it produces, and its replacement cost. Those are the three classic elements of appraisal every building, every improvement ever appraised is done that way.

So the Secretary of Revenue's supposed to say what is the value of this pipeline looking at those three factors? Depreciation plays a part because the pipeline is a mechanical system and it will wear out. Just like your house is a mechanical system and it wears out. But for ad valorem property taxes, there isn't anybody in

this room who will say that their house has gone down in value, even though it eventually will wear out.

So, yes, depreciation is a real factor for ad valorem property taxes. In my lifetime, I've never seen depreciation play a role in ad valorem property taxes because the value of everything always goes up. Does that make any sense?

CHAIRMAN JOHNSON: Other questions or comments?

Other questions or comments? While people gather their thoughts, we'll mention just once more this is not the end of your opportunity to provide public comment to the Commission. It's just the beginning. And if there's something you've forgotten or you want to raise up later, you can go to our website, gather some information on how to provide that comment or contact any of the staff members tonight and they'll help walk you through the process. Go ahead, sir.

MR. HEEB: Ed Heeb again. The other question I am wondering about is it was kind of mentioned a little bit earlier about our existing water lines that we have, private owned, wiring systems, all of that stuff that we have in the ground. When and where do we get contact on that? Because, I mean, we're going to bump into each other. And then who covers that expense? My existing lines are there and the way I'm understanding you it's --

what I have existing is going to go under you. So then our water systems are going to be shut down for, you know, a short period of time, but who takes care of that, that expense?

MR. PHILLIPS: You'll be working with our land people to work out those details specifically. When they come out and survey on your place you need to let them know where those water lines are and then the land people will work out the specific details with you one-on-one about what we need to do, how we go about that.

MR. HEEB: Okay. And then what kind of time frame is that? Is that going to be ahead of the pipeline --

MR. PHILLIPS: Well, the land folks have been -- have you had contact with anyone yet with the land group?

MR. HEEB: No.

MR. PHILLIPS: Oh, with construction? The land people -- we'll try to get those things fixed before construction if we can. I mean, that's the best case scenario is that we make whatever arrangements we need to to get your water lines out of the way down below where we're going to be prior to construction. That way when the construction comes through there's not anything that would cause any kind of problems for either of us. So we're going to try and do all of that in advance. And

working with the land folks they'll work with you to -- about how we'll go about that.

MR. HEEB: Okay. Then I guess I still didn't really understand you when you said the length of time. When you're on a mile stretch -- that's what I'm going to have involved is a mile. How long are you going to be on my land for that mile? I guess I thought -- the way I understood is maybe six weeks to get a mile?

MR. PHILLIPS: Well, we're talking about multiple crews that are involved. You know, during the slide presentation we talked about how this kind of works as an assembly line. Well, there's multiple crews that are working and each crew we try and work -- each crew can work maybe a mile, mile and a half a day. And so but we're talking about multiple crews and there's spacing in between those crews too. So the answer I like to give is that we're usually -- from when we first come into your place with the clear and grade to when we finish with the cleanup, usually about six to eight weeks.

MR. HEEB: Okay. Then the other question that poses to me is you're going to have to cut fences to get through, so are you guys buttoned up and shored up at night or do you have somebody set on these fence lines? Because we just went through this with the water line, and that's kind of the way they worked it.

MR. PHILLIPS: Typically what happens is the fences are gapped, and they're closed every evening. So I mean, everything's buttoned up at the end of the day.

MR. JONES: You know, I just want to add on the length of time. Sometimes the cleanup is really dependent on weather. And if you were to look at the rainfall we had last year we may have it all flat and graded but not the final cleanup.

So I do want to make sure folks understand that if the weather's great, then for sure within that time period. But sometimes the cleanup crews, because they want to do a really good job, they may be a little later than that. With that being said, we'll work within the whole next year to try and satisfy folks to make sure it's the way it was before we got there.

MR. HEEB: I guess in -- okay. One of the things that we seen with the rural water line that came through, you know, everything was pretty good for six to eight months, maybe even a year, and then all of a sudden we had a lot of cave back in and the ground packed and stuff. So then you guys will -- do you come back and take care of that after the fact? I mean, some of this it could take -- if we stay dry, we could sit there for three years and then we finally get wet again, then it's going to sink. And that's your responsibility still to

come back and take care of that and not ours; right?

MR. PHILLIPS: If the ditch sinks, we come back and fix it.

MR. JONES: Now I also want to thank you for that question because it actually helps us to provide another clarification on some of these representations. Our construction techniques are far different than a water pipeline. So we actually bring the compaction back over the top of the line so the opportunity for settlement is far less in the technique we use compared to that kind of construction.

Again, we try to use the best practice. And obviously the sophistication of the type of contractors and construction techniques we use is, you know, quite a bit different than what you might have seen with the water line.

MR. KILNESS: Robin Kilness again. I will probably have to talk to Dennis about this but I was just thinking. Now where the proposed pipeline is right now coming through, it comes so close to the house. And it's even closer to my barns. What about for liability issues where we have young kids that may be at the barn and would be within maybe 100 feet of the right of way or the -- the working way from the center? I haven't -- they haven't got it staked the way it was proposed. I

wasn't there the day they did it. But I wondered like with all of that big equipment working and kids and that around, how -- I mean, what precautions are taken in place for that?

MR. JONES: You know, one of the things -- thank you very much for that question. That's great because it allows us all to also talk about safety. Our presentation doesn't clearly emphasize how important safety is in everything we do, and especially for not only the public but for our workers. So we want to make sure that when we outline the construction, we come through your property with construction, we want to ensure the safety of not only our workers but for you and your family. So that will be our very first priority is to identify that.

Now with regards to ensuring that safety I'm going to get John here to provide a little further details on that.

MR. PHILLIPS: Typically what we do when we're working near residences and, for example, small children or children are involved, we'll do some safety fencing, some orange safety fencing to -- in some areas to make sure that -- you know, it's not easy access to get into the ditch just as an example.

CHAIRMAN JOHNSON: Other questions? Comments?

Other questions? Comments? Okay. Ma'am, right here in front. Sorry. Go ahead, ma'am.

MS. HANRAHAN: My name is Debbie Hanrahan, H-A-N-R-A-H-A-N, Philip. Where you cross the river, the Cheyenne River, and come up a steep, rugged hillside, that land there is very unstable. We have massive landslides occur at any given time. Sometimes you can see them before they happen and sometimes they just happen. Such as a wet year we'll have large slides.

We addressed this issue with TransCanada. We met with some of your engineers. We showed them some of the landslides that we had. So you adjusted the proposed line. But I don't feel that moving the line 200 feet would really make it any safer because the area is unstable.

And then the oil line does cross another large waterway called Bridger Creek. And the name can be eluding because it sounds like a small winding creek, but actually in its flood stage it can look like the Cheyenne River. So it can carry a large body of water. This area also is just as unstable as near the Cheyenne River.

So I was wondering if there is a leak, say, in the river and say the water is near flood stage as it was two weeks ago, this area is 50 miles north of Philip, 120 miles from Rapid City. If there is a leak, how soon can

you get to the area to stop it? I know you have shutoff valves, but the distance between your shutoff valves, you know, how much is going to leak into the river and how far is it going to go? And we all know the Cheyenne River flows into the Oahe.

MR. JONES: Thank you for your question. I'll direct that to a couple of experts to help answer your question.

MR. GALE: My name is Richard Gale. One of the first questions you addressed, Ms. Hanrahan, correct? One of the things, I know that we have been out talking to you on that and there was a route deviation that was proposed kind of in your area. I think we looked at a maximum deviation across through there approximately 1,100 feet in places to kind of move the line based upon some of the discussions.

And you mentioned the Cheyenne River and yes, the Cheyenne River is a horizontal directional drill so that particular crossing will be at a lot greater depth when we cross through there for the various reasons that you have mentioned as far as the stability on each side. So we'll pick the best spot on the entry and exit side of that particular river to cross there to get deep enough across there at that river.

Now the creek that you mentioned and the other

places that you mentioned, what we do on places like this is we take a look at these from an engineering standpoint. We look at the scour potential for these particular things. So you're right, some of these things may look like little meandering creeks but they have a potential in the floodplain area to get a lot of drainage that comes through there. So we'll look at each one of those individually. We look at what the scour potential is, whether or not we have to have an extra depth across underneath your water body. And we also look at what the lateral migration could be in these particular points.

So, for example, this is a large floodplain and it looks like that the river for some reason could straighten out rather than be meandering or whatever and for some reason or another we might need to have extra depth across for certain amount of variable, we'll also take that into account and that's put into the design of each one of these particular crossings as we go through.

And as far as the restoration, we will work towards restoring these. It's not -- it's not a matter of just going through there, fixing it and leaving. We're there for the long-term to make sure it's restored back the way it needs to be.

Now for the specifics as it regards to the leak and leak detection and things like that, John Hayes here

can answer that question.

MR. HAYES: Thanks again, Ms. Hanrahan, for the question. I appreciate it. Every spill is unique, and our pipelines are designed to the highest safety standards known. In the unlikely event of a leak, I mentioned earlier within the gentleman's question that we've developed a very comprehensive emergency response plan.

There's a few unique things in the plan that I was able to include. And the one part of the plan that's unique on that I've taken from 30 years in doing pipeline work and the best practices available in Canada and the U.S. is what we call tactical control plans. And a tactical control plan is a predetermined area downstream on a water crossing where we are able to go and safely respond to a leak.

The second part of that other than what's in our plan is we do have and will have strategically placed specialized oil spill response equipment along our pipeline. That equipment will be stored at a contractor's yard yet to be determined and is available 24 hours a day all year long.

The third part about equipment is we also have retained what I call the 1,000-pound gorilla in the United States. The National Response Corporation has

more independent equipment, owned equipment, and contractor alliances in the United States than anybody. They have guaranteed us a response to anywhere in the United States within 12 hours with as much equipment as we need. That contract has been signed, and it is part of our response plan.

Lastly, and an important part, it's nice to have a plan in place to have equipment. We also have to train our employees. We are in the process right now for our Keystone employees in training our employees on what's called HAZWOPER. That's a U.S. federal requirement to train our employees on oil spill response. I have retained the best available trainers in the business to help us get our people well versed in oil spill containment and recovery in all situations like I mentioned before.

We just recently completed a very, very comprehensive five-day program in Yankton on the Missouri River in teaching our U.S. and Canadian employees on how to contain oil on a river. And that program will continue, and we'll also be working with local first responders and helping them understand our priorities and theirs as well.

MS. TILLQUIST: One more thing I would add to that is under PHMSA we are required to put valves,

isolation valves, on both sides of major rivers, and that's in order to control spill volumes so if an incident occurred they would be able to shut that off and control the spill volume. So that's something that's required, and that's something that actually John and I and a few other people have been working on throughout the process is trying to figure out where is the best place to put these valves to minimize spill volumes should a spill occur.

MS. HANRAHAN: But the land is unstable. In some of these hillsides, they are not just small hillsides. They are steep. And these landslides can occur, perhaps you know how to tell. But we've shown some of your engineers some of the landslides we have had. Is your pipeline going to hold up to something like this? And I guess -- I guess that's my question. I just -- I am questioning the strength of your pipeline as opposed to some of this earth movement.

MR. JONES: Just to supplement Richard's answer, you know, certainly with 100 years of pipeline experience the industry has and TransCanada's experience, what we find is the best practice in these unstable slopes, these major river crossings, is a horizontal directional drill and that will get the pipeline deep enough so that it will be able to avoid these unstable portions of the

slope that you're describing here at the Cheyenne.

CHAIRMAN JOHNSON: Okay. We've got a question right here or comment.

MS. LAMBERT: I think you have mentioned that TransCanada has what, $40 million for liability; is that correct? What did you say in case of the company goes bankrupt or goes -- you know, decides to quit? Is that what you said?

MR. JONES: No, I didn't. I believe I described our asset value. We have $30 billion worth of assets.

MS. LAMBERT: Okay. That would cover anything that went wrong or if you went out of business and needed to do environmental cleanup and so forth?

MR. JONES: I think it certainly shows the strength of our company with regard to our capability to be able to respond to any type of emergency.

MS. LAMBERT: Okay. So that was 38 billion?

MR. JONES: With the change in the currency, we have 10s of billions of dollars of assets in North America.

MS. LAMBERT: I had thought you said million, and I was just kind of wondering. Million isn't much.

CHAIRMAN JOHNSON: Other questions? Comments?

MR. NELSON: My name is Clayton Nelson. What is your compensation formula? So much a mile or so much an

acre and so much a year and the following years? What do you pay someone?

MR. JONES: Sir, I assume you're asking us what is our easement compensation program?

MR. NELSON: I couldn't hear. I don't hear too good.

MR. JONES: Okay. Sir, I'm just trying to clarify your question. I believe you're asking us what is our proposed compensation to acquire an easement?

MR. NELSON: Right. And does it vary from, well, mile to mile and 10 miles, yes.

MR. JONES: Yes. Thank you very much. We'll try and answer that question for you.

MR. PHILLIPS: Okay. The permanent easement's a one-time payment. It's based on acreage. It's based on land use. The -- but it's a one-time payment for the permanent easement. Fair market value. Some percentage of fair market value, yes. Because when -- you'll still be able to farm and ranch over the permanent easement once we finish construction and the pipeline's been installed and in operation.

CHAIRMAN JOHNSON: Sir, go ahead.

MR. BIERLE: Kory Bierle from Midland. What is your ability to detect a leak as expressed as a percent of daily capacity of the pipeline?

MR. JONES: Sir, could you repeat that question again?

MR. BIERLE: What is your ability to detect a leak, and if you could express it as a percentage of the daily capacity of the pipeline? Like you're going to pump so many million gallons a day. At what level are you able to detect a leak?

MR. JONES: Yeah. Thank you for that question. That gives us an opportunity to describe our leak detection system. I'll ask Mr. Hayes to address your question.

MR. HAYES: Okay. Thank you. Am I on at the back? Okay. Yeah, I'm happy to answer that question on leak detection.

Both Keystone and KXL has implemented and will implement the most sophisticated leak detection system known available in the world today. It is a system that has five overlapping and complimentary applications, and what I'd like to do is describe those five to you.

I guess to start with I'll divide them into two kind of silos. The first silo represents what Mr. Jones showed on his slide, and that is a control center, a picture -- if you recall that picture of a control center in Calgary, it kind of looks like NASA, if you will. And what those people do in the control center is they

operate what's called our SCADA system. SCADA is an acronym for System Control and Data Acquisition.

So the first part of SCADA that these highly-trained and skilled operators use in our control center, just like you know as far as you're all ranchers and farmers, you understand pressures and flows. On our pipeline system there's pressure monitors and flow devices installed along our pipeline. And we are able to detect with pressures and flows from 100 to 30 percent of the flow rate of the volume.

Now if there's a problem with flow or pressures at those thresholds, the pipeline is immediately shut down. Okay? So that's the first one.

The second one is called an MBS or Mass Balance System. If you think of that long linear pipeline like a big tube and it has volumes that are metered in so at Hardisty, Alberta the volumes are metered in and what comes out has to balance. Otherwise we have a problem. So the Mass Balance System, which is continually running in our control center and is on an individual screen with an operator can detect leaks from 30 to 5 percent of the flow rate.

Now we can also take it one step further. This is the third application as far as our computer systems. It's called a Computational Pipeline Monitoring System.

And it's able to detect 5 to 1.5 percent of the flow rate in 102 minutes or less. Now they typically do find that leak but if for some reason the Computational Pipeline Monitoring System is not able to do that, it continually kicks in and runs again and again and again until we can find that leak. But again -- and Ms. Tillquist is going to talk about some statistics on how quick those leaks are found.

So with those three computerized systems, the other part is the softer side, and that's what we call direct observation. And Mr. Jones has already talked about our aerial surveillance frequency. But what I do want to add to the frequency of aerial patrol is it's just not a patrol plane flying down the pipeline. These are highly-trained, highly-skilled pilots that have specific training to identify leaks from the air, and any type of anomalies that they haven't seen on the patrol before, third-party damages, sunken ditch, any of those things that might cause us a concern for pipeline safety.

We train them to look at oil staining, stressed vegetation, discolored snow or ice, or any of those things that might represent a leak for us.

That's the first method of direct observation and the fourth one I've discussed.

The other one that we really feel is critical is

the education of public first responders and anybody else that is in and around our pipeline. We rely on others as well to hopefully be aware where our pipeline is through our education programs. Particularly I see we have some emergency response folks over there. We want to educate them on where our pipeline is, what their role is, what's in the pipeline, and what safety precautions they need to take.

So our leak detection, again, has five big components. I do want to add one I forgot and it's kind of -- if there's any accountants in the group, we also have to true-up accountingwise and that's kind of a sixth one, although a softer one. When we pull what's called a ticket on how much volume is going into the pipeline we also have to match that to what leaves.

So, again, we are typically able to detect leaks down to a couple of days. And I'm going to ask Ms. Tillquist who has some data to share with you on some of the statistics that happen as far as leak detection.

MS. TILLQUIST: I want to talk a little bit about actual historical data. We're talking about systems that we're going to be implementing, but sometimes it's nice to go back to actual data and see what's happened in reality and what has been detected and how quickly.

There is a database that's maintained by PHMSA. This is the Pipeline Hazardous Material Safety Administration. They look at pipeline incidences across the entire United States. The most current database starts in 2002 and runs to date. The nice feature about that database is it now incorporates information about detection time so we're able to run some information trying to determine how quickly leaks have been detected.

And just to throw some numbers out at you, the majority of the leaks that are in the database are detected within three hours. 97 percent of the leaks are detected within seven days. So, again, we're talking about what at that point would be a very small leak. So they're still able to pick up those very small leaks. And of those small leaks -- you know, so if we didn't detect it within the first 24 hours, the majority of those spills, they're not really monstrous spills. In fact, the majority of them were 15 barrels or less. So, I mean, we can look at the -- what I want to reassure people is it's not a leak that's sitting out there gushing, you know, 10s of thousands of barrels. They're typically very small amounts.

CHAIRMAN JOHNSON: Sir, before you ask your question, let's get a feel for I'm trying to judge when to take another break. How many more questions or

comments would we have by a show of hands? Okay. Then we'll keep plowing. Go ahead.

MR. HOSTUTLER: Glen Hostutler. You can detect a leak down as far as 1 and a half percent; right, of the volume that's going through?

MR. HAYES: Yes. But we'll both say yes.

MR. HOSTUTLER: Okay. In a day's time is that about 395,000 gallons?

MS. TILLQUIST: Well, what he's saying is --

MR. HOSTUTLER: 1 and a half percent of the volume that you can detect in a 24-hour period, is that about 395,000 gallons?

MR. HAYES: So I think, sir, that number contemplates your math, if I understand it correct, that is for a full-line rupture. And we detect that instantly.

MR. HOSTUTLER: No. 1 and a half percent of the volume, a small leak.

MS. KOTHARI: I think what we'd like to clarify is that the leak detection systems that we described, they can detect a 1 and a half percent leak of flow rate within 102 minutes. That's not to say that the leak detection system stops working at the 1 and a half percent mark. It will continue to work and detect volumes lower than 1 and a half percent. It will just

take a little bit longer of a time frame.

And in that time frame from a supporting aspect, as John mentioned, the direct observation methods will likely find those leaks much quicker than the electronic system. But it's not to say that the electronic system is not working to continue to find those leaks less than the 1 and a half percent, it's just a threshold -- they're both working at the same time, but it's just a threshold that for a 1 and a half percent leak the typical time frame to detect that is 102 minutes.

CHAIRMAN JOHNSON: And Ms. Kothari over here, did you say 102 minutes?

MS. KOTHARI: Yes. 102 minutes.

CHAIRMAN JOHNSON: Okay. Thank you. Questions or comments?

MS. LAMBERT: What if there's a leak in water, the rivers in particular?

MR. JONES: We have answered that question. You know, I guess I -- we certainly will try and answer it again. But maybe I'll just try and ask my witnesses to be a little bit more brief this time.

MR. HAYES: That would be this witness that has to be brief on a subject that's near and dear to my heart. Again, if there's a leak in water we have an emergency response plan. We have our own equipment

that's stored at a contractor's yard, and we have highly trained and skilled people to respond. We're right now training these people as we speak.

CHAIRMAN JOHNSON: Sir, let's go ahead and after the fact, after we break why don't you chat with her to make sure she gets all the detailed information she needs.

MR. HAYES: I'd be more than happy to do that.

CHAIRMAN JOHNSON: Great. Thanks very much. Other questions or comments? Other questions or comments?

MR. NEVILLE: Kenny Neville again. You spoke about the restoration of the cropland and the pasture land. What about the restoration going through the Cheyenne River and Bridger Creek itself? There's a lot of cedar trees in there that will be disrupted. Do you plant trees back? Do you -- that type of thing?

MR. GALE: Within the 50-foot permanent easement we do not plant trees back. But one thing to be clear, like, for example, what we do at the Cheyenne River, these aren't discrete drills that just cover the distance of the river. What we typically do for 36-inch pipe, we have to get back a pretty good way. So don't quote me on the exact length of the drill, but for the length of drill on the Cheyenne River we'd be looking somewhere

around 3,000 feet perhaps for that drill. So you're backing a good distance up on the entry and a good distance up on the exit. And you're getting very deep.

So, you know, the slopes on the side of the river are not impacted whatsoever. There's trees that are there at the edges of the banks of the river, they're still there after the HDD. We do not mess with those. So it's entry disturbance, exit disturbance, and everything in between is exactly the way it was.

CHAIRMAN JOHNSON: And it was probably obvious to everybody, but HDD is an acronym for horizontal directional drilling. And that would be drilling down underneath the river or like Bridger Creek.

MR. GALE: That is correct.

MR. SEAMANS: Paul Seamans. Back to that question on the leak. If you're running 900,000 barrels through it per day and at 1 and a half percent leak in one hour you're losing about 31,000 gallons; is that right? Or is my math wrong?

MR. HAYES: Mr. Seamans, if I understand your question, that also assumes a full rupture.

MS. SEAMANS: I'm assuming 1 and a half percent. You're detecting down to 1 and a half percent. That's about 13,500 barrels a day.

MR. JONES: Exactly. So you take 900,000

barrels per day, how many minutes that would be. Shorten it down to 102 minutes and then take --

MS. SEMMLER: Right. So it's going to be even more than 31,000. I just figured for one hour. We'll have to get together.

MR. JONES: We'll work together and work on the calculation. Thank you.

CHAIRMAN JOHNSON: Doing math in public is always fraught with public embarrassment potentially. All right. Questions and comments? Questions and comments? Questions or comments?

Well, on behalf of the Public Utilities Commission we certainly want to thank you all for your patience and the good hospitality the people of the area have shown us.

And let's have staff one more time raise their hands. We've got Mr. Solem back here, Ms. Splittstoesser, Mr. Knadle, Ms. Semmler, Mr. Binder, Mr. Smith, and the Commissioners.

And thank you very much. We'll stand adjourned.

(The hearing was concluded at 9:33 p.m.)

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 27th day of April, 2009, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 11th day of June, 2009.

_____

Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

D

E

S

T

U

V